

28th October 2010

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Dear Margaret

**Smart Metering Implementation Programme:
Gemserve's response to the Prospectus Consultation, October 2010**

Please find attached Gemserve's responses to the Prospectus consultation questions that are required by 28th October 2010.

We welcomed the Prospectus in July 2010 and acknowledge the desire by government to accelerate the smart meter rollout compared to previously published targets. Indeed, we responded to the initial consultation on some of the key aspects of the Prospectus. This response represents our view on the remaining questions relating to data privacy and security, consumer protection, energy displays, the approach for smaller non-domestic customers, the proposal for the new Smart Energy Code and the establishment and scope of the central data and communications function (DCC).

Smart Metering represents a major transformational change for GB energy markets and provides an enabler to drive energy efficiency and carbon reduction across households and businesses. The Prospectus and related documents sets out some clear thinking covering a large breadth of subjects. The context of our response focuses principally on the areas where we can offer the most value and insight – specifically the governance arrangements for the Smart Energy Code and information security/privacy.

- We have extensive experience in competitive utility markets including providing governance services for the Independent Gas Transporters Uniform Network Code (iGT UNC), designing the market arrangements for the Scottish water market, and administering the governance of the GB electricity Master Registration Agreement for over a decade
- Through our wholly owned subsidiary, Red Island Consulting, we are a global leader in the provision of Information Security Solutions and have achieved ISO27001 compliance/certification for more organisations than any other consultancy.



Recognising the desirability of accelerating the programme, we have developed and circulated our thoughts to help inform debate to bring forward the arrangements.

We have outlined an alternative or enhanced model for governance, building on the work already outlined in the Prospectus that would facilitate an earlier rollout, provided a detailed cost/benefits analysis, and examined the options for industry representation and engagement.

In responding to the Prospectus consultation questions that are required by 28th October 2010, we have drawn on much of our thinking from our latest thought leadership paper. It represents an integral aspect of our submission and sets out in more detail the benefits of the proposed enhanced model in both qualitative and quantitative terms to the overall benefit of consumers, all industry parties and the regulator. The benefits include:

- Supporting an accelerated programme – by advancing the enduring governance arrangements by 12 months to align with implementation of the Smart Energy Code so avoiding the need for interim procedures;
- Ensuring cost effectiveness – saving an estimated £25m over 10 years;
- Securing effective management; and
- Engendering proactive engagement from all parties.

The thought leadership paper is fully appended to this consultation response in the Appendix.

Please let me know if you wish to discuss any aspects in further detail and we welcome the opportunity to contribute further.

Yours sincerely

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Prospectus

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

We are pleased to see that many sources have been consulted, including technical inputs such as NIST, but also consumer and industry input.

While the privacy issues around smart metering are obviously covered by the Data Protection Act (DPA), in itself it is only a “framework of rights and duties” and sets out the obligations of entities involved in using and protecting information.

While it is right and proper that organisations protect the data according to the DPA, without clear standards and policies to support this, the implementation is open to interpretation and differences will arise in the level and rigour of information security controls applied.

We believe that there is a requirement for a specific standard relating to smart metering defining the requirements of all entities that store, process or transmit smart metering data.

4. Have we identified the full range of customer protection issues related to remote disconnection and switching to prepayment?

The Prospectus sets out some clear thinking and has identified most, if not all, customer protection issues related to remote disconnection and switching of prepayment.

We would observe one issue in respect of gas - remote disconnection must not be considered as an alternative where currently isolation is required nor as a replacement for situations where the existing Emergency Control Valve (ECV) should be operated.

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

We agree with the approach of not mandating the provision of an IHD in the smaller non-domestic sector. However, we do believe that it is essential that these customers can readily access their consumption information to either obtain tailored advice on energy efficiency or to assist with the process of changing suppliers and identifying the best tariff for them.

Drawing on the larger non-domestic sector by way of example, customers either procure, or are granted access to, a monitoring and targeting application for such activities. These are commonly known as automatic monitoring and targeting applications or “AM&T”.

Web based AM&T energy management software enables larger customers to benefit from energy monitoring and targeting, which provides an extensive range of techniques for managing all aspects of energy data.

Achievement of the above in the larger non-domestic sector is via commercial contracts, either directly with the energy supplier, the Data Collector (DC) or an energy management company. In the smaller non-domestic sector, we are of the opinion that information provision and energy

management services will be readily available to non-domestic consumers and is a matter of customer choice.

With regard to the installation of smart meters for the smaller non-domestic sector, we support the proposal that the installation of smart meters should be on the same timescales as for domestic sites, and we also recognise and support the arrangements that are proposed for customers who have advanced meters installed before April 2014 or are installed after April 2014 under pre-existing contracts.

Our response in respect to the use of the DCC for the smaller non-domestic sector is covered in later sections.

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

Yes, we support DCC responsibilities being limited to data access, translation and scheduled data retrieval. These services alone, combined with the smart meter rollout, will support the overall aims of the smart metering project of transitioning to a low carbon economy. These basic services will provide energy consumers with real-time information about their energy use, enabling them to monitor and reduce energy consumption and carbon emissions.

We fully support that the Smart Energy Code will provide a basis to simplify and improve the industry processes, including change of supply, and to enable the development of smart grids.

We support the view that smart meter registration should come under the auspices of the Smart Energy Code, moving towards convergence of industry codes. The DCC is certainly an option for taking on board national meter point registration services in order to realise the full benefits of smart metering, but we believe that other options are available to the industry, and other parties may have an interest in performing these services. In our opinion, whilst a register of smart meter systems should reside within the initial scope of the DCC, any supplier registration for those smart meter systems need not and should not be within the initial realm of the DCC.

Inclusion of registration systems and services for DCC Go Live adds risks to the programme, which could ultimately lead to the prolongation of the interim interoperability arrangements a later realisation of the full benefits of smart metering. The primary objective of smart metering is to pave the way for a transformation in the way that energy is supplied and consumed, contributing to the Government's goals of energy security and carbon reduction.

Moving things forward, we are supportive of the work of the Data Communications Group (DCG) in continuing to work with stakeholders to undertake further cost/benefit analysis to develop proposals for the scope of the DCC. We support the objective of the exercise to assess the incremental costs and benefits associated with the implementation of DCC under three main scenarios.

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

Gemserv is supportive of the creation of a procurement and contract management entity, which supports aspects of the services chain being open to competitive pressures. Such an entity would be well placed to adapt to developments in the industry and will allow requirements to evolve over time. This is in contrast to the procurement of a full service provider and we are in agreement that this approach will provide less flexibility and a less cost-efficient model in the long term.

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

We support the governance framework for regulatory oversight of the DCC being a combination of the DCC licence and the Smart Energy Code.

A primary tenet of Ofgem's proposed regulatory framework is the establishment of a new dual fuel framework, the Smart Energy Code. Against the background of good governance and better regulation principles, Gemserv supports the creation of the Smart Energy Code and is fully aligned with Ofgem on the rationale and benefits of the Smart Energy Code. However, we do believe that it is significant to note that the Smart Energy Code is much broader than the DCC and will include responsibilities on suppliers and network owners. Examples include:

- Registration - the actual process of registration will always be initiated by suppliers. Rules and processes for registration will consequently need to recognise all participants as well as DCC.
- Meter installation, removal and exchange obligations and procedures – Rules and processes for the practical arrangements between the parties and their agents to enable smooth processes for the continuing rollout of smart meters and their subsequent maintenance and replacement.
- Operational processes - to facilitate the performance by suppliers, network owners and agents as well as DCC for their respective functions in relation to the provision of services.
- Smart Grid – enable the emerging and evolving requirements for network owners.

The DCC is a delivery/operational function and, in simple terms, is acting as a monopoly enhanced data collector. There are several references in the Prospectus to further enhancing the role of the DCC, e.g. smart meter system registration, but it remains the case that the DCC provides delivery and operational services as a participant in the industry, and no more. Building upon this, we believe that the DCC is a party to the Smart Energy Code as opposed to being responsible for the overall governance.

Achieving the right balance between the licence conditions placed on the DCC and the content of the Smart Energy Code is critical, especially in the context that the Smart Energy Code is much broader than the DCC itself.

We are of the opinion that the programme should leverage existing structures and governance examples which have successfully achieved this careful balance. Indeed there are examples where

licence conditions being discharged through more detailed code/agreement provisions which have stood the test of time e.g. the MRA. Indeed, it is significant to note that the SPAA was developed by licensing the structure and content of the MRA which had the benefit of supporting an accelerated implementation of the SPAA as a relevant instrument and reducing legal costs.

In the event that the DCC takes on the responsibility for the registration of suppliers to gas and electricity smart meter systems, much of the detailed content of the incumbent agreements may be utilised to form the basis of the Smart Energy Code. For example, for electricity, much of the MRA content that sets out the registration responsibilities and processes could provide a starting point for an initial early version of the Smart Energy Code.

We have significant experience of drafting for the MRA and also the development and implementation of the Market Code and Code Subsidiary Documents for the water market in Scotland and would be pleased to offer our support to the SMIP in relation to the development of the Smart Energy Code.

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

The elective use of the DCC for non-domestic customers provides a number of potential benefits. Suppliers to commercial customers, or customers themselves, may be able to negotiate preferential terms for data and communications services. However, in the longer term and in the context of smart grids, we believe that this decision could require re-visiting. For an integrated smart grid solution, it may be more beneficial for all consumption data for domestic and non-domestic to be routed through a single service provider, as opposed to multiple service providers.

Elective use of the DCC for small non-domestic customers could create complexities and inefficiencies in the communications chain. We would recommend that the SMIP looks at the experience of interim arrangements (pre- DCC) to inform whether this approach is counter-productive to harmonisation and rationalisation. Furthermore, it could create “flippers” and “flopsters” i.e. customers who switch suppliers who have different arrangements for data provision, whereby one supplier chooses to use the DCC while the other elects to have commercial arrangements.

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

We agree that a Smart Energy Code is required and that the effective governance of the Smart Energy Code is critical to the success of this smart transformation of the energy market. The design must be right from the outset otherwise the impact will be noticed for years to come.

We consider that the Smart Energy Code will sit alongside the MRA and SPAA as outlined in figure 1 below, but in the longer term we anticipate that the Smart Energy Code will replace the existing agreements as the harmonised retail framework.



Figure 1: Smart Energy Code Positioning

We believe it is appropriate to deliver a Smart Energy Code for smart only and leave the markets to further develop and integrate aspects from the MRA and SPAA at the appropriate time or tipping point. In our July 2009 DECC consultation response on smart metering we described how the MRA and SPAA would “wither on the vine” to describe the gradual shift from legacy to smart arrangements over a period of time. Just as we have advocated that Smart arrangements should not be shoe-horned into existing governance structures, we also advocate that legacy arrangements should not be shoehorned into the Smart Energy Code arrangements in the early years.

Role of Code Administrator

Gemserv believes that the role of the Code Administrator (CA) needs further review and definition.

Given the importance of this role, we believe that once the DCC is appointed the new licensee’s primary focus should be the procurement, initiation and ongoing management of the technical services rather than undertaking additional procurements, such as the appointment of a Code Administrator, which could be considered broader than the DCC’s principal function.

Gemserv believes that the role of the Code Administrator could be categorised in three broad areas to reflect the important roles that need to be fulfilled for the robust governance of the Smart Energy Code and market arrangements. These are:

- **Code administration & secretariat** – a primary element of the service will be to efficiently operate the Smart Energy Code. This will clearly include administration duties such as meeting scheduling and organisation but also skilled, knowledgeable resource to draft meeting papers and perform high quality secretariat services. The potential impact of poor service delivery on parties and efficacy of the Smart Energy Code should not be underestimated.
- **Change Management** – central to the role is the management of proposed modifications to the Smart Energy Code. The change process must be inclusive, rigorous and efficient to enable change to be implemented in an informed and co-ordinated manner. Acting as a proficient “critical friend” to all parties will be an important responsibility for the service provider, along with the ability to conduct robust analysis to ensure that the decisions made are well founded and stand up to external scrutiny. In addition, the change management process should retain flexibility so as to encompass the ability to consider future market evolution to allow a managed transition to meet new and changing requirements.
- **Assurance** – this element could include the assessment of new processes and functions to provide confidence to the industry that the changes to be implemented are done so effectively and that inter-operability between market participants is maintained. As such all parties, including the DCC, could be subject to this quality assurance whether it be a new entrant to the market or a requalification of existing parties or service providers. The need for independence in performing this role is paramount.

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

Whilst recognising that the smart metering arrangements are emerging at this stage, it should not be overlooked that smart metering systems can facilitate better visibility of and access to information relating to micro-generation, Feed-In Tariff Scheme, Renewable Heat Incentive and the Green Deal.

These initiatives are being implemented around the smart programme, and yet smart metering could bring significant efficiencies and benefits to consumers and market participants alike.

These wider impacts should not be discounted, nor treated as being out-of-scope but should be revisited at a later stage in the SMIP.

We envisage that these subjects, along with Smart Grid requirements will provide sufficient subject matter to warrant SMIP II.

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

The current approach assesses the initial risk to technical and functional issues in the rollout, but does not cover the overall approach to implementing such controls and standards in individual organisations. In addition, no consideration has been given to the ongoing management and assurance of privacy and data security post-rollout. Lessons learned in other industries show that the unknown/undiscovered threats and vulnerabilities are often the greatest risk. For example, if a future vulnerability is discovered in the HAN network protocol, what is the process for assessing this

vulnerability and reworking the design, and rolling out updates, not only to technical systems, but to updating standards and policies.

Also there appears to be no defined processes or framework for implementing and managing data security within each of the participating organisations. While adhering to the DPA is a requirement, there are no defined policies or processes defined within the DPA to cover specific security controls and processes. How will each organisation protect the data it accesses/processes? How will such security be managed and monitored? What incident management and response processes will be defined to notify and manage any suspected breach?

It is our view that a clear framework for information security must be implemented to support the Privacy Charter. This framework will cover two main areas:

- Overall governance – common standards policies, assurance and regulation of information security in participating organisations, incident management and response, feedback to organisations as well as government and regulatory bodies on information security and privacy performance and issues; and
- Individual organisation privacy and security controls: risk assessment within each organisation around the data involved, systems and processes within the organisation that may affect information security, application and implementation of common standards and policies, auditing an assurance internally, local policies and controls implemented to meet the requirements of the overall privacy and security requirements.

We see the development of a framework to involve the following key activities:

- An overall framework for information security, in-line with ISO27001 and the Security Policy Framework, covering mandatory requirements for any organisation involved with smart metering data. This will cover the overall approach to meeting the Privacy Charter, general rules and policy requirements, auditing & assurance of participating organisations, incident management & response, review and update of policies and standards;
- An organisational level framework for information security, including risk assessment & risk treatment in-line with the overall policies and standards; and
- An overall set of Information security policies with minimum baseline requirements that all participating organisations should adhere to, to meet the requirements of the Privacy Charter, as well as the Data Protection Act requirements.

We have seen the benefit of defining a specific framework and standards for information security in the ND643 standard, designed in conjunction with Ofcom to cover the specific requirements for Connection Providers for Next Generation Networks (NGN). Based on ISO27001, the standard has specific targeted minimum requirements for managing information security in a way that is relevant and tailored to the communications industry. A similar approach should be adopted in the smart metering industry to ensure that security is not just managed at a technical level at roll-out, but is covered at an organisational and management level, and caters for on-going management and protection of consumer data.

Communications Business Model

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

Centrally co-ordinated communications can bring significant efficiencies to market operation. Passing information from distributed sources to recipients who are, in turn, also notified from diverse sources creates many dependencies in the communications chain, with the consequence that any one break in the chain causes a systemic failure in the whole process.

In our experience of designing the delivery solution for the water market in Scotland, a single central system provided for rapid dissemination of information to market participants. For example, meter read information was passed on to other relevant participants as soon as it was received, thereby streamlining both timescales and transactions for this key market information.

For translation and data retrieval services, it will be important to strike an appropriate balance between the needs of the market and the needs of suppliers offering retail services to customers, which could include management of micro-generation and energy efficiency packages as well as the emerging Green Deal requirements. If data retrieval or translation were to be exclusively DCC activities, this could frustrate both the wider objectives of supplier-to-customer services as well as the participation of energy service companies who wish to offer consumer-direct services.

In our view, managing the needs of participation of diverse entities outside of the traditional generator/network/shipper/supplier licensed activities will bring challenges. It is not clear at this stage which of the existing market infrastructure agency support roles (in particular the meter operator/MAM) would interact with either the DCC directly or through the supplier. Mapping such market operations will greatly inform the practicalities of transferring functions, and the data required to support such functions, into the DCC's area of operations.

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

It is our view that the consideration of including supplier registration within the DCC activities merits a project in its own right in order to determine both the enduring requirements of such an activity as well as the scale of the exercise to migrate any registration datasets from the existing systems to a single centralised one. Furthermore, any issue in migrating from legacy systems to a single new system with potentially different data combinations and validation requirements could impact the change of supplier process that underpins customer transfers, especially in the case of DCC take-up of all meter points irrespective of whether smart meter systems have been installed.

We believe that the integration of supplier registration and data retrieval activities under the DCC should be a matter of wider debate through the industry in order to determine the appropriate requirements and development timescales to achieve the efficiencies of centralisation without disruption to 'business as usual' activities.

Given the scale of smart meter programme, we are inclined to the view that supplier registration functions under the DCC and Smart Energy Code should be 'phased in' at an appropriate time. In particular, a consideration could be that, as the rollout progresses, any issues which occur with the new smart metering system arrangements would rapidly gain in materiality. The magnitude of any

such issues would increase if registration was introduced at DCC Go Live. We therefore do not recommend registration from Day One, as this will increase programme risk.

A further programme risk of integrating registration, whether for smart meters only or for legacy and smart, is the additional system development, build and test activities, which would have to be a criteria for market readiness acceptance. Thus, a new risk would be introduced in that Go Live could be delayed or compromised.

Before looking at some of the pros and cons of meter registration falling within the scope of the DCC, we would observe that consideration should be given to the terms 'registration' and 'meter registration' as used in the Prospectus. These terms need to be employed in a clear and consistent fashion in order to avoid ambiguity in considering the scope of functions included within the DCC activities. In this regard, we consider below two aspects of registration: meter registration and supplier registration.

Meter Registration - It is clear that DCC will need a register of smart meter system information in order to fulfil its core role as the controller of access. A dataset of smart metering system information does not yet exist within the gas or electricity markets. Therefore, it would seem appropriate that a register of smart meter systems could reside with the DCC when that entity becomes active.

Supplier Registration - The core purpose of registration is to establish who has responsibility for a metering point. Historically, network operators have been responsible for registration systems and the primary registration activity has been for suppliers to notify their acquisition of the metering point. We believe it will be important to define the role of 'registrants' and the data requirements in any harmonised process. This is of particular importance having in mind the terms of the 'Third Package' in relation to transfer timescales.

We further explore some areas that could merit further discussion on the topic of registration in Table 1 and Table 2 overleaf.

Table 1: Registration

Centralisation

The case for a partial or wholesale change of systems to accommodate a DCC smart metering and supplier registration arrangement would need to be made having in mind that 'non-smart' meters do not fall within the scope of the SMIP and could therefore be expected to continue to be managed in the existing gas and electricity registration systems.

A move to a 'virtual' centralised registration service for the electricity sector could be considered on the basis that the MPAS Registration Systems currently share a common platform. This may not be an enduring solution but could provide a centralised registration solution for the short to medium term.

Gemserv are open to the view that a single centralised service could be contemplated either:

- under existing instruments which contemplate the desirability of a logical progression to a consolidation of arrangements to a Smart Energy Code through using existing provisions for responsibilities to continue and move towards a controlled and orderly handover to the new arrangements; or
- under a Smart Energy Code and DCC arrangements which could be contemplated at an appropriate stage in the SMIP; for example consolidating all GB meter point registrations under DCC-procured services when smart meter rollout is at a 'critical mass' albeit without a migration exercise from one system to another at that stage

Change of Supplier registration

In the electricity sector, the facility for 'day+1' change of supplier registration has always been supported. It has been the supplementary transfer of supplier agents and information that have extended into the maximum '28 day' window to complete the change of supply process. The operation of the DCC for access control and scheduled data retrieval for smart meter systems offers suppliers a material compression of the timescales needed to complete the supplementary change of supplier process. This could in itself translate into suppliers being confident in managing a shortened registration window within the existing de-centralised registration systems.

An exercise would be critical to forming a decision on whether a whole market 'Day 1' solution under DCC is desirable or achievable, or whether a transition plan with controlled migration milestones would be an appropriate approach

Table 2: Impacts

In the event of any supplier registration activity being undertaken by the DCC, either for smart only or for the whole market, we would strongly advocate a thorough analysis on the extent and scale of impacts related to:

- controlled migration of registration information from legacy systems to a new system under DCC and exception handling, particularly the continuation of settlements;
- BAU activities on active meter points during any migration exercise (i.e. cutover data versus updates which have occurred since the data-cut);
- risks in data quality, especially bearing in mind any address data alignment activity;
- development of a functional requirement specification for inclusion in the Smart Energy Code;
- any requirements for ECOES or SCOGES to be replaced by an equivalent services provided by DCC or alternatively for DCC registration information to be integrated into those web solutions.
- development of a data transaction dictionary for communications from suppliers and network operators to DCC's registration system;
- accreditation for live operation of the DCC's registration system and assurance for the enduring operation;
- assurance and due diligence measures that could be used to add rigour and clear market readiness criteria to secure a 'Go Live' decision for the registration system;
- 'run-down' requirements for legacy registration systems from day one until the settlement calendar has completed;

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

Gemserve support the view that the DCC should be a licensable activity and that the authority will carry out a competitive procurement process for the granting of the licence.

We also believe that the DCC will have to demonstrate, through competitive tender, demonstrable experience in the procurement and contract management of data and communication services, plus the demonstration of its independence from service providers.

We note that you are further considering whether or not DCC needs to be fully independent from suppliers or other service users. We are supportive of the requirement for the DCC to be an independent company; it should be subject to company act obligations and have separate, published accounts, which will aid with transparency. Our paper in Appendix 1, section 6, contains further details on this subject and the requirements for independence e.g. compliance with Companies Act.

In terms of the structure and ownership/shareholding of the DCC, the industry has demonstrated in the past that it can work together and create separate limited companies/consortia for the provision of services on a non-discriminatory basis e.g. MRASCo Ltd, DCUSA Ltd, SPAA Ltd. As such, our view is that the authority should welcome innovative commercial structures/special purpose vehicles and solutions for the provision of DCC to promote competition and choice.

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

We note in the Prospectus that the DCC licence is granted in Autumn 2012, service providers appointed by Spring 2013 and DCC trialling and testing complete by Autumn 2013 in preparation for the mandated use of DCC for domestic customers. Overall, 12 months may be an acceptable period of time allowance for the realisation of the DCC based on the proposed initial scope of providing secure communications, access control, data retrieval and translation services.

We would observe that the DCC has a pivotal role; once the DCC is appointed the new licensees primary focus should be the procurement, initiation and ongoing management of the data and communication and support services rather than undertaking additional procurements, such as the appointment of the Code Administrator, which could be considered peripheral to their core function. We have already provided a view on the governance arrangements for the Smart Energy Code and believe that they should be separated from the DCC. In this regard, removing Code Administration from DCC realisation removes this activity off the critical path provides additional time for procurement, testing and trialling of data and communication service providers.

Noting the desire and consideration to include meter point registration within the DCC scope from Go-live, we would observe that a 12 month window for realisation of the DCC would be a considerable stretch and could put at risk the mandated use of DCC for domestic customers in Autumn 2013.

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

DCC's financial viability will depend on the exclusivity granted by its licence, its ability to recover its costs and the manageability of the risks which are allocated to it. Our observations relate to the development of cost recovery and incentivisation mechanisms that are proportionate to the lifecycle of the DCC.

The Prospectus outlines clear thinking and proposed a model for cost recovery and incentivisation. It is vital that the DCC delivers a cost efficient and resilient service. It must also be a financeable entity that can be delivered through a competitive licence award process and which is flexible to adapt to developments in the industry.

Aligned to our comments around the Smart Energy Code, further consideration must be given to the ramp-up/iterative development and growth of the DCC aligned to the volume of smart meters rolled-out for which it provides services. While we support the work and arrangements being developed, there is a danger of over-engineering the cost recovery and incentivisation mechanisms in the early stages that are disproportionate to the size of the entity.

Regulatory and Commercial Framework

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

We believe that the key elements identified represent an appropriate regulatory regime although we note that the details of the new licence and the Smart Energy Code have perhaps not had the same extent of discussion as, say, the DCC arrangements. Therefore this may need to be tested when further details of these instruments emerge.

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

We believe that the transformation of the current industry governance arrangements to support the market arrangements for smart meter systems is best served through the creation of a Smart Energy Code.

We further believe that the Smart Energy Code has an important role for interoperability during the early stages of rollout and would be an appropriate vehicle in which to codify the requirements between suppliers and their agents in passing information in a timely manner at events such as change of suppliers for smart meters only.

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

Our comments on the table of contents deal with two matters; firstly the breadth of the Smart Energy Code and secondly additional contents that could be included to ensure robust and transparent arrangements.

Breadth of the Smart Energy Code

It is significant to note that the proposed Smart Energy Code is much broader than the DCC. This is demonstrated in Table 3 below. Examples include:

- Registration – the indicative table of contents that it would set out DCC's responsibilities. However, the registration processes has inputs from suppliers and network operators. Rules and processes for registration will consequently need to recognise all participants as well as DCC;
- Meter installation, removal and exchange obligations and procedures – these responsibilities exist regardless of DCC interaction;
- Responsibilities on Suppliers;
- Responsibilities on Network owners;

Ref	Appendix 3 Indicative Smart Energy Code Contents (DCC roles highlighted in green)
1	Definitions and Interpretations
2	Parties
3	Accession process
4	Smart Energy Code Panel
5	Modification procedure
6	Technical interoperability requirements and procedures
7	Commercial interoperability requirements and procedures
8	Meter Registration (to be confirmed)
9	Meter Installation, removal and exchange obligations and procedures
10	Meter access control and access authentication
11	Gateways, data exchange formats and commands
12	Transfer of data and commands to and from smart meters initiated by authorised parties
13	Data services provided by DCC
14	Responsibilities on Suppliers with respect to meter system operation
15	Responsibilities on Networks with respect to meter system operation
16	Implementation of measures concerning data privacy and consumer protection
17	Security and business continuity
18	Performance levels, performance monitoring and incentivisation
19	Business processes
20	System and process assurance
21	Billing and payment processes
22	Reporting
23	Interfaces with other industry agreements
24	Dispute resolution
25	Limitation of liability and other provisions

Table 3 – Content of the Smart Metering Code

Additional items for the Smart Energy Code “Table of Contents”

Drawing upon our experience of other market codes, we have noted below some other candidate areas to consider for inclusion in the Smart Energy Code.

- **Relevant Objectives** – reference to these appear to be omitted from the initial draft table of contents. Existing codes have relevant objectives as stated as part of the enabling licence condition while the retail agreements do not explicitly set out these out. While it has been argued that a too strict interpretation of objectives can inhibit change, a counter argument is that the necessary broad description of the objectives can mean it is often difficult to discount any change as indirect relationships can be nearly always be identified.

Nevertheless, it is Gemserv’s view that providing a number of key objectives, at an outcome based level, is helpful to provide a set of criteria that parties raising modifications must demonstrate relevance and against which the modification is assessed. Accordingly, we would propose that a limited set of relevant objectives are established for the Code. While these should be determined in discussion with industry, we would expect a primary objective should be the promotion of effective competition in the supply of gas and electricity and potentially metering services.

- **Funding** - We have limited this to the support services required to administer the Code and have not included the data or communications services provided by the DCC and its agents (it is expected that the latter will be subject to price control under the DCC licence).

The old adage is often quoted in these debates “no representation without taxation”. This is shorthand for the principle that the level of funding should be commensurate with the share of the vote, e.g. if a party has 25% of the vote, that party should contribute 25% of the costs of running the Code. While there is clear logic in this approach, parties with limited resources (which is common with new entrants), may be unable to finance their vote. The counter argument is that there should be a relationship with a party’s use of the service being provided and often a proxy for this is the meter points that that party serves.

For the Code, Gemserv believes that if the design of the voting arrangements is to address the issue of inclusivity and encourage participation in the decision making process, it is inevitable that a direct relationship between the share of the vote and funding will need to be weakened although not severed. If this is the case, the use of market share by meter points is the primary candidate for determining the financial contribution for individual parties.

- **Non-exclusivity** – the rules and arrangements established by or under the Smart Energy Code should support the majority of smart meter system activities and also provide for some divergence, where permitted, on a bi-lateral basis. For example, supporting the minimum functional and technical specification of the smart metering system.
- **Non-discrimination** – the rules and/or arrangements established under the Smart Energy Code should not unduly discriminate or cause undue discrimination between market participants.
- **Customer contact** – the rules and arrangements established by or under the Smart Energy Code should embody that the primary contact with a customer should be through that customer’s

electricity or gas supplier, other than in certain situations, for example emergency matters or where the customer has appointed its own agents.

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

A primary tenet of Ofgem's proposed regulatory framework is the establishment of a new dual fuel agreement, the Code. Against the background of good governance and better regulation principles, Gemserve wholeheartedly support the creation of this Code and are fully aligned with Ofgem on the rationale and benefits of the Code. However, Gemserve believe that there is a strong case for the governance model to have clear separation between the DCC's responsibilities and the governance of the Code. Drawing on experiences of governance in the GB energy industry, the Scottish water market and the findings of the Code Governance Review, Gemserve believe that there is a case for further separation of governance from delivery; in other words for DCC responsibility to be focused on securing integrity of the smart meter arrangements and the delivery of data and communication services to the industry. Figure 1 below provides an overview of the regulatory framework as outlined in the Prospectus enhanced to give clear independence between the DCC and Code governance (as circled below).

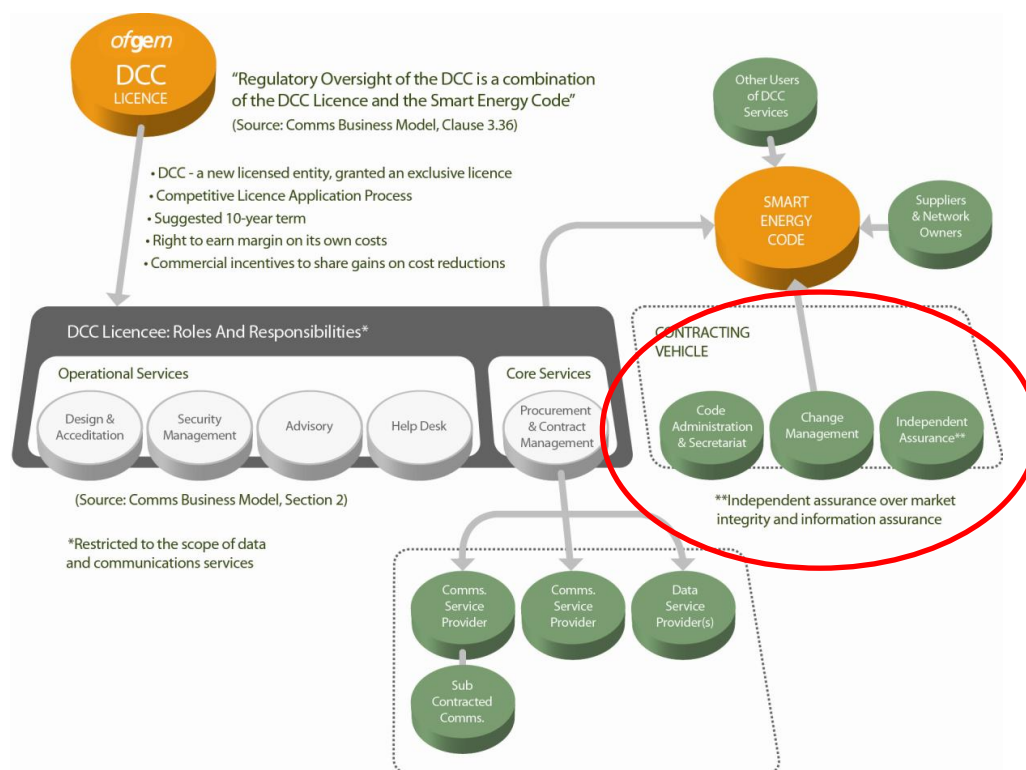


Figure 1: Gemserve's Enhanced Model

In contrast to the DCC procuring the role of the Code Administrator, this model places the accountability on the users of the Code to ensure its effective governance. This correctly places the responsibility of defining the governance services collectively with the Code parties, i.e. the users of

the services. This responsibility would naturally extend to managing a competitive tender process to procure a governance service provider.

An accelerated smart metering programme

Recognising the desirability of accelerating the programme we have developed and circulated our thoughts to help inform debate and to bring forward the arrangements.

The proposed timetable in the Prospectus suggests that the Smart Energy Code will Go-Live in Spring 2012 following implementation of the supply (and presumably the network) licence modifications. However, if the DCC is appointed in Autumn 2012 it is unlikely that a Code Administrator (CA) will be procured and operational before early Spring 2013. This will leave a period of year where the Code will need to be governed under interim arrangements against the backdrop of the mandated meter rollout scheduled for Summer 2012, up to nine months before the enduring Code Administrator is appointed. While it is feasible that the Programme could undertake this interim Code Administration role, it will place additional pressures on the limited regulatory and industry resource and could raise concerns over the regulator having to perform multiple roles, e.g. administrator, change manager and arbiter.

In order to address this issue, two options have been explored which either avoid or minimise the interim governance arrangements for the Code. Figure 2 below sets out the timelines for the base scenario (Prospectus) as outlined above, the Memorandum of Understanding (MoU) scenario and the Licence Modification scenario

- **Memorandum of Understanding (MoU) scenario** – an industry group potentially facilitated by the programme would develop an MoU to give a shared commitment from gas and electricity suppliers and network operators, i.e. prospective Smart Energy Code parties, to collectively procure an independent Code Administrator by competitive tender. Discussion on this could commence immediately with a view of implementing the MoU by Summer 2011. The requirements of the Smart Energy Code parties, the users of the service, could be defined over the next 3-6 months allowing an ITT to be issued with the Code Administrator appointed and operational by Spring 2012, coinciding with the Smart Energy Code Go-Live. It is envisaged that the corporate vehicle, as discussed previously, would need to be established in Winter 2011.
- **Licence Modification scenario** – utilises the licence modifications scheduled for early 2012 to require suppliers and network owners to work together to ensure the effective, independent operation of the Smart Energy Code. This would effectively give prospective Smart Energy Code parties a mandate to procure an independent administrator. This obligation would complement the proposed licence requirement to be a party to, and comply with, the Smart Energy Code. Furthermore this collective imperative has parallels with licence obligations in existing Codes, e.g. IGT Licence Condition 9 where each Gas Transporter is required together with other relevant Transporters to establish and operate Network Code modification procedures. To achieve this they have tendered and procured a Code Administrator.

Under this scenario, while the licence modifications would be implemented in early 2012, the consultation period regarding the proposed obligations, would allow industry to mobilise in advance to develop its business requirements for a Code Administrator (required irrespective of approach). This would facilitate the competitive tendering exercise and appointment by Summer 2012 (with the establishment of the corporate vehicle likely to coincide with the Code Go-Live).



While this means a three month interim period would remain, this is a significantly shorter period than the base scenario and could be managed effectively, e.g. change freeze.

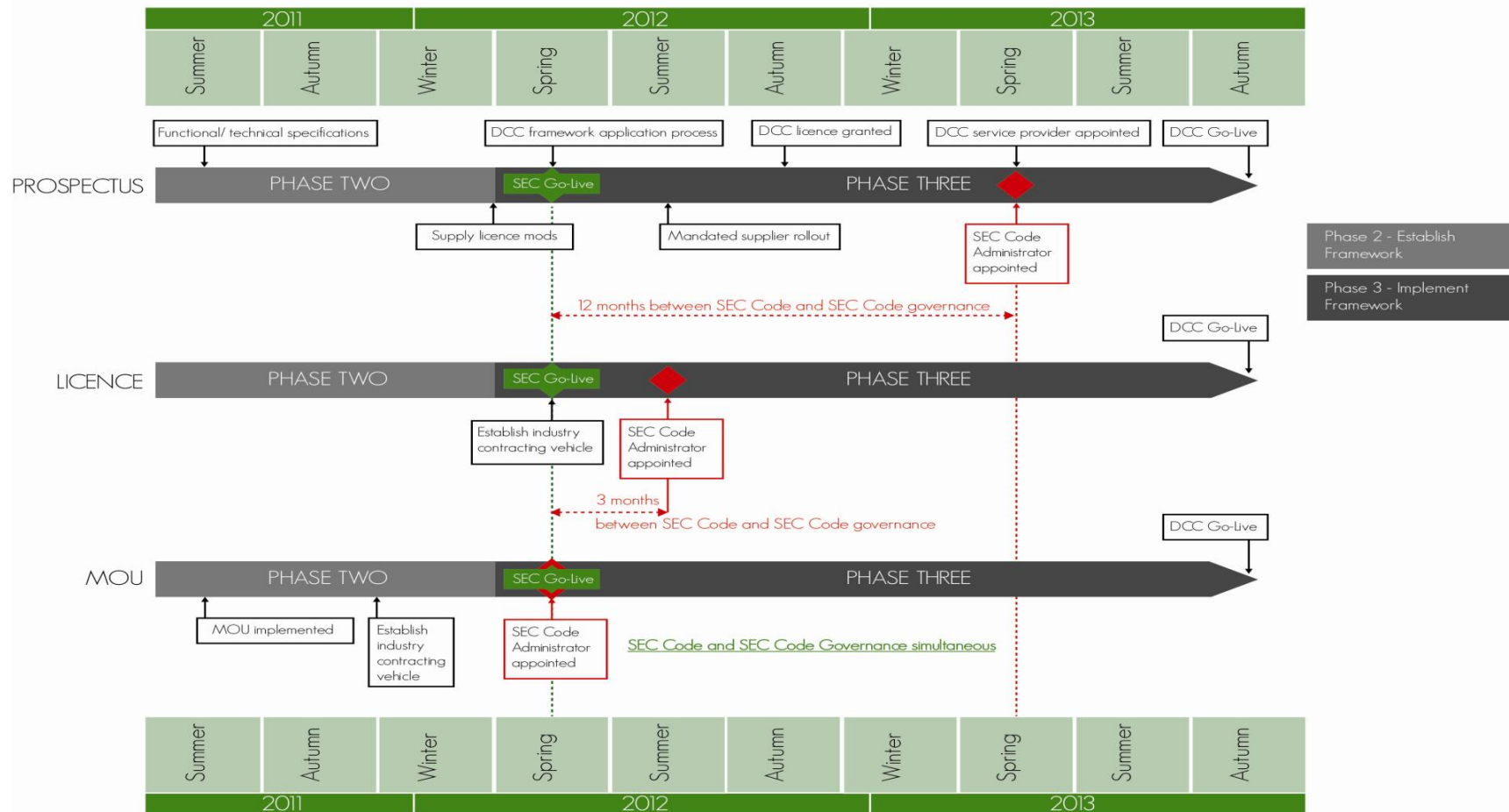


Figure 2: Implementation Timescales

Effective Management

The Enhanced Model facilitates effective management of the smart metering governance and addresses a number of issues:

- **Scope of the Code being wider than the DCC** - It is significant to note that the proposed Code is much broader than the DCC. The DCC therefore has a pivotal role in supporting these arrangements through the provision of Operational Services (Design & Accreditation, Security Management, Advisory and Helpdesk) and procurement of Core Services (Communications and Data). Given the importance of this role, we believe that once the DCC is appointed the new licensees primary focus should be the procurement, initiation and ongoing management of the above technical services rather than undertaking additional procurements, such as the appointment of the Code Administrator, which could be considered peripheral to their core function.
- **Independence/Conflicts of Interest** - The DCC is likely to operate on a commercial basis and as such will have an incentive to increase revenues and lower its costs. It should therefore not have wider market responsibilities that may give rise to real or perceived conflicts of interest.

The DCC will operate in an environment which is increasingly competitive and dynamic. It must also, however, comply with extensive regulation given its monopoly position. If the DCC does appoint the Code Administrator, both organisations will have to undertake, at additional cost, steps which demonstrate independent arrangements and regulatory compliance.

Further, the Code Administrator will need to demonstrate that they are truly independent of all categories of Code signatory. For instance, in the event of a modification having a significant impact on the commercial operations of the DCC, then this modification needs to be demonstrably progressed in a transparent and equitable way showing no undue influence by the DCC. This principle equally applies where another category of signatory to the Code (e.g. Suppliers, Network Owners, etc.) is solely responsible for the appointment and contract management of the Code Administrator.

In addition, a key role for the Code Administrator should be to facilitate independent challenge of proposed DCC modifications and issues. This is akin to the “Critical Friend” role as detailed in Ofgem’s Code Governance Review. The Code Administrator should test the appropriateness of the analysis and the conclusions drawn from it in respect of any proposed modification. This ensures that where modifications are likely to significantly impact upon smaller participants (however defined) and/or consumers, appropriate representatives can be alerted. Likewise any issues or queries that have been raised by small participants or consumer representatives are appropriately addressed. If the Code Administrator is contracted to the DCC then these roles could be seen to be compromised.

- **Engendering stakeholder buy-in** - As well as being wider than the DCC’s functions, the Code will inevitably require input/liaison from a wider stakeholder community than just the signatories to the Code.

The stakeholder community and especially those with licence conditions to support the roll-out and ongoing operation of Smart Meters will favour enduring governance arrangements which

allows the industry to govern itself whilst striking an appropriate balance between accountability, responsibility and regulatory control. Most importantly it places the responsibility for effective governance with the Code parties, i.e. the users rather than a third party (the DCC).

- **Practical considerations** - An obligation on the DCC to procure and manage the Code Administrator may also introduce a number of practical issues. As currently proposed the DCC will have a licence with a 10 year duration. This period is significantly longer than the tenure of existing Code Administrators/Intelligent Secretariats who are subject to competitive tendering.

Cost Benefit

The Enhanced Model provides a number of benefits some of which are qualitative (accelerated timescales, effective management and representation & stakeholder engagement) whilst others are quantitative.

A full assessment of the cost benefits is given in Appendix 1, section 5. Cost savings could result from:

- An independent Code Administrator can provide a robust assessment and challenge to both the DCC's operational costs and service levels but also challenge the costs of Code modifications that directly affect the DCC.
- The avoidance of independent advice for the DCC to address any perceived conflict of interest arising from Code changes directly related to the DCC's governance or performance or changes proposed by the DCC which are directly beneficial only to the DCC or its service providers; and
- Reduction in compliance costs for the DCC and the Code Administrator through not having to demonstrate independent arrangements and regulatory compliance given the monopoly position of the DCC and the contractual relationships between the two organisations.

We have estimated that our Enhanced Model offers cost benefits in the order of £25 million over a period of 10 years.

In summary, the model provides greater incentives on industry to reduce Code governance costs with all savings passed directly to industry rather than shared with the DCC. This is particularly important for small parties as it reduces their regulatory burden.

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

We believe that the Smart Energy Code has an important role for interoperability during the early stages of rollout and should therefore be put in place as early as possible. The Smart Energy Code would be an appropriate vehicle in which to codify the requirements between suppliers and their agents in passing information in a timely manner at events such as change of suppliers for smart meters only.

9. What is needed to ensure commercial interoperability?

A set of clear functional and technical specifications describing the core functionality of the components of a smart metering system is essential to ensuring interoperability can be achieved. That said, there may be outstanding matters such as compatibility of communications medium between suppliers prior to the DCC covering these arrangements.

Governance of any interim interoperability will be key and we are of the view that the early operation of the Smart Energy Code will be a key enabler to secure interoperability and a route to handle any issues identified between suppliers.

10. Can current arrangement for delivering technical assurances be developed to gain cost effective technical assurance for the smart metering system? If so, how would these procedures be developed and governed?

We do not believe that current arrangements for delivering technical assurance can be shoehorned to provide the technical assurance arrangements for the smart metering system; however, the existing arrangements provide a useful basis on which to develop the new arrangements. The grounds on which we do not believe that the arrangements can be developed for the smart metering system are:

- Technical assurance audits, performed by a Technical Assurance Agent (TAA) is presently only undertaken in the electricity sector for half hourly sites. In gas, however, there is no equivalent ongoing audit of metering systems, with the exception of an audit for large daily metered (DM) sites;
- New equipment – the smart metering system considers of a WAN module, HAN, IHD and gas and electricity metrology equipment. In this context the existing technical assurance does not specifically audit communications.

Smart Metering Systems are defined as comprising the IHD, HAN and WAN communications devices as well as the metrology, and the technical assurance regime for smart metering systems will need to take account of these items of equipment. Moreover, if it is to be enshrined in the Smart Energy Code, the technical assurance regime will need to cover both gas and electricity installations. This will save costs owing to the shared nature of the smart infrastructure.

There is a strong case for smart metering system technical assurance being a feature of the Smart Energy Code. However, it may not be a complete reengineering of the assurance requirements as we acknowledge that standards exist in the technology sector for certain items of equipment that will feature as part of the smart metering system.

11. Are there any other regulatory and commercial issues that the programmes should be addressing?

Whilst recognising that the smart metering arrangements are emerging at this stage, it should not be overlooked that smart metering systems can facilitate better visibility of and access to information relating to Micro-generation Feed-In Tariff Scheme, Renewable Heat Incentive and the Green Deal.

These initiatives are being implemented around the smart programme, and yet smart metering could bring significant efficiencies and benefits to consumers and market participants alike.

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

In the short to medium term, we do not envisage any changes to settlement arrangements to realise the benefits of smart metering.

Accuracy of settlements for both gas and electricity will improve through the increased availability of accurate and contemporaneous readings through time. Ultimately there may be a desire to move towards interval data being used for the whole market. However this can only be contemplated when the impact of such a transformation on the profiling/AQ arrangements is understood, and in the context of other benefits of smart metering that may arise.

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

Independent electricity distribution businesses are included within the MRA conditions for meter point registration services. Thus, in contemplating any change to the MRA provisions, independent network operators would fall within scope.

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

Matters related to emergency metering work undertaken by distribution businesses may need to be looked at in the context of smart metering systems.

In terms of the scope and scale of the activities undertaken by the DCC, this will inform a root and branch review of existing instruments and processes. However, the extent and coverage of this review will be dependent on the detailed solution developed for the DCC's market role.

The source of information for settlements in the area of the BSC requirements would be a process for consideration. Requirements in this regard currently reach across to the MRA in terms of the registration systems, which are used to determine supplier responsibility for a metering point. In the event that registration was to transfer to DCC, then it is likely that equivalent BSC requirements would need to be considered for the Smart Energy Code.

It is likely that further information will emerge when the Government response to this consultation is published and this will inform the direction of the smart metering delivery solution.

Non-Domestic Sector

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

We are of the opinion that the difficulties encountered in the non-domestic market are not too dissimilar similar to those in the domestic sector e.g. meters in basements, hard to reach locations. We therefore see no real reasons why derogations should favour suppliers in the non-domestic sector versus the domestic sector.

We support the view that there is scope in the programme to develop technical solutions to some of the problems over the course of the rollout. At is stands today with the exception of the EDRP trials the smart metering solution is un-proven so effectively all metering points are starting from the position of not having a technical solution to support smart metering.

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

We are not aware of any other significant technical circumstances, over and above those that we are contributing to in the SMDG and related sub-groups that would warrant further flexibility around installation of either smart or advanced meters.

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

Yes, we are supportive of option 2, the elective use of the DCC for non-domestic customers. Suppliers to commercial customers, or customers themselves, may be able to negotiate preferential terms for data and communications services. On this basis, suppliers or agents could be permitted to use DCC but have no obligation to do so.

However, in the longer term and in the context of smart grids, we believe that this decision should require re-visiting. For smart grid solution, it may be more beneficial for all consumption data for domestic and non-domestic to be routed through a single service provider, as opposed to multiple service providers.

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

We believe that some commercial/independent advanced metering companies or ESCO's may be concerned that the DCC could use its exclusive position in the domestic market to unfairly compete in the non-domestic sector e.g. under-selling. The prospectus proposes to limit the DCC's ability to offer such services.

Our opinion is that the DCC should be prohibited from such activity and should not be allowed to abuse its exclusive position by forcing out rival, smaller competitive businesses. Many independent ESCO and metering businesses have successfully grown over the past decade; the intervention of government and decision on a national monopoly must not restrict or distort competition unfairly.

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

Smart Grid will be dependent on the timely receipt of consumption data/instantaneous energy usage. As the non-domestic customer base represents >50% of the energy use in the UK, the opportunity for smart grid development will be significantly undermined if suppliers/non-domestic customers choose to by-pass the DCC, and therefore visibility to such data may be restricted.

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

At this stage in the process, we do not believe it is necessary to introduce a new licence condition to ensure that metering data for non-domestic customers is passed to network owners or DCC.

This view is formed in the context that there are significant changes to codes/agreements purely to support smart metering and the requirements for smart grid are insufficiently worked through at this stage. Therefore, we believe that this should be considered at a later stage in the SMIP programme.

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

We support the view that commercial and technical interoperability is vital, especially given the number of premises in the smaller non-domestic sector. Robust interoperability arrangements need to be in place to give customers confidence and to protect the investment made in new technology, whether that be the customers or third parties.

We do not support the view that only commercial interoperability is possible, given the range of smart and advanced meters in the non-domestic sector. Technical and commercial interoperability should be in place irrespective of sector to promote competition and choice for customers. We do not believe that the current arrangements are acceptable and these should not be de-scoped from SMIP.

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

To ensure that the benefits of smart and advanced metering are maximised and the overall business case is delivered, we support a view that minimum requirements should be put in place.

We do not believe that information provision be a matter of contract between the customer and the supplier. This is especially true for micro-businesses that are characteristic of consumption patterns similar to the use of a domestic customer and are not part of a multi-premise organisation.

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

Yes, we support the general principle that consumers should be able to choose how their consumption data is used and by whom, except where the data is required to fulfil regulated duties.

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

To ensure that the benefits of smart and advanced metering are maximised and the overall business case is delivered, we support a view that suppliers should be subject to a licence condition/obligation.

Customer Protection

3. What do you consider as acceptable uses of the installation visit and why?

Customers are likely to have more interaction with gas meters in the smart world and as a result there will be a significant training requirement to ensure that customers understand the operation, information and implications of the meter. Even those customers operating on credit tariffs will require guidance on how to obtain the maximum benefits from their smart meter. The temptation may be to do the training when the meter is installed but it will also need to be available when customers change tariffs, particularly between credit and pre-payment/pay-as-you-go. An introduction on safety could also be included in the customer training especially for gas meters to ensure that the reconnection process is explained and emphasising the importance of ensuring that all appliances are turned off before the reconnection switch is activated at the meter (or IHD). Such instruction should also be backed up by clear written documentation.

Further, the visit is an opportunity to reassess the consumers at the premises in whether any special arrangements are likely to be relevant (such as vulnerable consumers, priority consumers, access arrangements to the meter).

The consumer understanding and accepting the smart meter is key to a successful roll out and to driving down energy consumption, so this real life interaction should be maximised.

We do not feel that the installation visit should be used as a marketing activity as in line with the current Marketing Code of Practice.

Overall there is a need for an Installation Code of Practice to be agreed and adopted by all parties.

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

Yes, we agree recognising that such practice is already normal in the commercial sector. The current practice in this sector is that customers gain access in one of 2 ways:

- they have their own monitoring and targeting (M&T) application, which enables them access consumption data. Generally meter reading companies provide access to software that provides the visibility into the data; or
- they receive it via the Data collector direct, in text or graphical format.

Applying this to the domestic sector, customers may want the granularity for 2 reasons:

- to monitor their energy efficiency; and
- to help them procure a better contract for supply.

We believe there will be a transformation in the way in which energy brokers operate in requesting data from the customer to help provide quotations for the new supply of gas and electricity supplies. Suppliers individually e-mailing out consumption data is unlikely as this will be both impractical and too expensive but an extension to the commercial sector applied to the domestic sector, i.e. free password controlled access to a supplier-owned monitoring and targeting tool for customers to see consumption data, is foreseeable.

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

As long as it is recognised that the decision to switch a consumer's meter to prepayment mode (and pay-as-you-go when this is introduced) is equivalent to the current decision to physically install a prepayment meter, then the licence conditions are generally satisfactory to provide the necessary level of protection, also taking into account the recent guidance (16 August 2010) issued by Ofgem. One further area to consider for gas smart meters, before any decision to remotely switch the meter is taken, should be whether the actual consumer who will operate the pre-payment meter has received, and understood, recent instruction on how to re-connect the gas meter following (self) disconnection, recognising that this may not be the consumer who was present when the smart meter was originally installed.

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

We do not believe that the provision of an appropriate IHD can be used to overcome situations where there are meter accessibility issues. Our view is based on experience in the current trials that the IHDs are often mislaid or thrown away and thus it cannot be relied upon that the IHD would be available for use at all times.

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

As outlined in Question 6, assuming the Supplier has satisfied themselves that the meter placement is suitable for prepayment mode and that the consumer does not meet the relevant criteria for pensioner or vulnerable classification, then the key aspect is to ensure that the consumer has received appropriate instruction on both how to operate the meter and (for gas) the correct reconnection procedure to be adopted following an instance of self-disconnection.

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

Recognising that the consumer situation will change during the meter lifetime, then it would seem relevant that the provision of emergency credit and 'friendly credit' periods should be mandatory. Without this there may be occasions when a consumer of pensioner or vulnerable status will accidentally self-disconnect despite the consumer not being in that status at the time the decision to switch to prepayment mode was taken.

11. Is the obligation which Ofgem is proposing to introduce on suppliers to take all reasonable steps to check whether the customer is vulnerable ahead of disconnection sufficient? If not, what else is needed?

For gas meters, we would support the need for at least one site visit prior to the disconnection on the grounds that disconnection could imply subsequent reconnection, once the reasons for disconnection have been resolved. At this stage a formal reconnection process would be required to be followed

and it is therefore important that the supplier is confident that the consumer is able to carry this out, or be prepared to provide assistance to carry out the onsite reconnection procedure.

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

Whilst we have no views on the acceptability of new approaches to partial disconnection, we do not consider that partial disconnection is relevant for gas meters, because of the problems that could be caused at the appliance by low/intermittent gas flows.

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

Our overall observation with regard to prepayment in the smart environment is that the decision to switch a meter to prepayment should require the same considerations to be in place as are required for the decision to disconnect, recognising that once a meter is in prepayment mode the consumer can self-disconnect either accidentally or deliberately. Further, for gas, it should be recognised that prepayment is at some stage likely to result in reconnection and hence requires that the relevant consumer is properly instructed in the correct reconnection procedure, including the need for external reconnection assistance should the consumer be unable to carry this out independently.

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

One other observation is that for gas meters remote disconnection must not be considered as an alternative where currently isolation is required nor as a replacement for situations where the existing Emergency Control Valve (ECV) should be operated.

Data Privacy and Security

3. Do you have any comments on our overall approach to data privacy?

We are pleased to see that many sources have been consulted, including technical inputs such as NIST, but also consumer and industry input.

While the Privacy issues around Smart Metering are obviously covered by the Data Protection Act, in itself it is only a “framework of rights and duties” and sets out the obligations of entities involved in using and protecting information. We believe that there is a requirement for a specific standard relating to Smart Metering defining the requirements of all entities that store, process or transmit Smart Metering Data.

While it is right and proper that organisations protect the data according to the DPA, without clear standards and policies to support this, the implementation is open to interpretation and differences will arise in the level and rigor of Information Security controls applied.

4. Do you support the proposal to develop a privacy charter?

The proposal to develop a privacy charter is an excellent one, and we support it fully. The potential impact to personal data will no doubt be a high profile and emotive subject in the rollout, and clear strategy and policy around privacy must be in place to demonstrate the commitment to the protection of customer data.

5. What issues should be covered in a privacy charter?

We believe the following issues need to be addressed:

- Consumer rights and controls around use of the data;
- Clear policy in the use of customer data, covering storage, processing & transmission, as well as clear rules around sharing of information with external parties;
- Clear defined responsibilities linked to information security and data protection for all parties involved in the storage, processing and transmission of Smart Metering consumer data; and
- The development of a governance framework, and best practice standards and policies for all participating organisations.

6. Do you agree with our approach for ensuring the end-to-end smart metering system is appropriately secure?

The approach to assessing risk is a good one and is aligned with best practices and standards such as the Security Policy Framework and ISO27001.

However, the current approach assesses the initial risk to technical and functional issues in the rollout, but does not cover the overall approach to implementing such controls and standards in

individual organisations. In addition, no consideration has been given to the ongoing management and assurance of Privacy and data security post-rollout. Lessons learned in other industries show that the unknown/undiscovered threats and vulnerabilities are often the greatest risk. For example, if a future vulnerability is discovered in the HAN network protocol, what is the process for assessing this vulnerability and reworking the design, and rolling out updates, not only to technical systems, but to updating standards and policies.

Also there appears to be no defined processes or framework for implementing and managing data security within each of the participating organisations. While adhering to the DPA is a requirement, there are no defined policies or processes defined within the DPA to cover specific security controls and processes. How will each organisation protect the data it accesses/processes? How will such security be managed and monitored? What incident management and response processes will be defined to notify and manage any suspected breach?

It is our view that a clear framework for information security must be implemented to support the Privacy Charter. This framework will cover two main areas:

- Overall governance – common standards policies, assurance and regulation of information security in participating organisations, incident management and response, feedback to organisations as well as government and regulatory bodies on information security and privacy performance and issues; and
- Individual organisation Privacy and security controls: Risk assessment within each organisation around the data involved, systems and processes within the organisation that may affect information security, application and implementation of common standards and policies, auditing an assurance internally, local policies and controls implemented to meet the requirements of the overall Privacy and security requirements.

We see the development of a framework to involve the following key activities:

- An overall framework for information security, in-line with ISO27001 and the Security Policy Framework, covering mandatory requirements for any organisation involved with Smart Metering data. This will cover the overall approach to meeting the Privacy Charter, general rules and policy requirements, auditing & assurance of participating organisations, incident management & response, review and update of policies and standards;
- An organisational level framework for Information Security, including Risk Assessment & risk treatment in-line with the overall policies and standards; and
- An overall set of Information security Policies with minimum baseline requirements that all participating organisations should adhere to, to meet the requirements of the Privacy Charter, as well as the Data Protection Act requirements.

We have seen the benefit of defining a specific framework and standards for information security in the ND643 standard, designed in conjunction with Ofcom to cover the specific requirements for Connection Providers for Next Generation Networks. Based on ISO27001, the standard has specific targeted minimum requirements for managing information security in a way that is relevant and tailored to the communications industry. A similar approach should be adopted in the Smart Metering industry to ensure that security is not just managed at a technical level at roll-out, but is covered at an



organisational and management level, and caters for on-going management and protection of consumer data.

Effective Governance of the Smart Energy Code

October 2010



INVESTOR IN PEOPLE



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1. Executive Summary

The opportunity to design an enduring, robust, inclusive and effective governance regime for the Smart Energy Code (the “Code”) is with us now. Gemserv’s solution is an Enhanced Model that will benefit consumers, all industry participants and the regulator by:

- **Supporting an accelerated programme** – by advancing the enduring governance arrangements by 12 months to align with implementation of the Code so avoiding the need for interim procedures;
- **Ensuring cost effectiveness** – saving an estimated £25m over 10 years:
 - by the industry collectively, competitively procuring code governance services, the full benefit of which is returned directly to Code parties; and
 - by providing the freedom for independent challenge of the Data Comms Co (DCC) for the services offered and modifications to support market evolution
- **Securing effective management** –
 - by guaranteeing independence through divorcing responsibility for administering and governing the Code from the DCC; and
 - by liberating the DCC to focus on its core competency of procurement and contract management of comms/data service providers without conflict of interest tensions;
- **Engendering proactive engagement from all parties** – by enabling the industry to embrace self governance while ensuring strong representation of, and robust regulatory protection for, consumers and all industry participants irrespective of market share.

The effective governance of the Code is critical to the success of this smart transformation of the energy market. The design must be right from the outset otherwise the impact will be noticed for years to come. We will demonstrate the benefits for the Programme, industry and consumers of the Enhanced Model, both quantitatively and qualitatively e.g. cost and timeline. In addition, to help inform the debate, we will include our thoughts on how the governance of a representative Code can be designed recognising that the potential approaches can be independent of the procurement responsibility for the Code administration.

2. Introduction

Document Purpose

This paper purpose of builds on the proposed arrangements for governance of the Code (the “Code”) as outlined in the Prospectus and introduces:

- An outline of an Enhanced Model for governance of the Code;
- The benefits of the Enhanced Model;
- A review of the timescales for realisation of governance arrangements; and
- Consideration of the options for voting and funding of the proposed arrangements, including details of the relevant protections and regulatory oversight.

Context and Background Information

Smart metering represents a major transformational change for GB energy markets and provides an enabler to drive energy efficiency and carbon reduction across households and businesses. The Prospectus consultation issued by DECC and Ofgem in July 2010 sets out some clear thinking on the governance arrangements necessary to support GB smart metering.

Gemserv welcomes the Prospectus and supports the proposals for the Code, which will underpin the operation of smart metering arrangements within GB energy markets. We believe that the Code will be a key instrument for ensuring alignment and process integration for smart metering across GB electricity and gas retail markets, and potentially in the future into other utilities such as the roll-out of intelligent metering in water.

Amongst other things, the Code will set out the industry requirements for smart metering, including technical specifications, roles and responsibilities of gas and electricity Suppliers, Network Owners and the pivotal role of the Data and Communications Company (DCC) as the hub of industry interoperability.

However, the major challenge for industry in the next phase of the Smart Metering Implementation Programme (SMIP) will be to develop good governance arrangements for this new Code that balances the tension between accountability and responsibility, and places the correct incentives on parties to deliver the benefits of smart metering.

Effective governance is the fundamental building block on which smart metering deployment and enduring operation must be built. Without effective governance, decisions will not be fully informed or durable. At best, decision making will be dominated by a few parties potentially slowing down change needed to ensure efficiency, and at worst, the making of wrong choices which would inhibit roll-out, competition and potentially lead to a legal challenge. If the right governance structure from the outset,

effective decision making will be inherent and so delivery of the objectives through the initial, interim and enduring phases will follow.

Further Information

Gemserv would be delighted to share and discuss the views expressed in this paper in more detail, both before and after the window for responses to the consultation closes. If we can be of any further help, please do not hesitate to contact us:

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About Gemserv

Gemserv is an expert provider of market design, governance and assurance services, predominantly in the utilities and environmental sectors. We have extensive experience in competitive utility markets including providing governance services for the Independent Gas Transporters Uniform Network Code (iGT UNC), designing the market arrangements for the Scottish water market, and administering the governance of the GB electricity Master Registration Agreement for over a decade.

Gemserv's company vision is to make competitive markets work effectively and with integrity and we are the leading specialist UK consultancy in the field of consensus building between industry stakeholders. By providing a range of governance related services, we facilitate fair, dynamic and innovative market arrangements so all participants have a voice in developing the policy and regulations that govern them. Our focus is always that all industry participants should have equitable opportunity to compete fairly in their chosen market through clarity of participant obligations and by constructing supportive pro-competition governance arrangements.

We believe that good governance is an absolute requirement for ensuring that key decisions will be informed, enabling stakeholder buy-in and delivering the desired outcomes.

3. An Enhanced Model

A primary tenant of Ofgem's proposed regulatory framework is the establishment of a new dual fuel agreement, the Code. Against the background of good governance and better regulation principles, Genserv wholeheartedly support the creation of this Code and are fully aligned with Ofgem on the rationale and benefits of the Code. However, Genserv believe that there is a strong case for the governance model to have clear separation between the DCC's responsibilities and the governance of the Code. Drawing on experiences of governance in the GB energy industry, the Scottish water market and the findings of the Code Governance Review, Genserv believe that there is a case for further separation of governance from delivery; in other words for DCC responsibility to be focused on securing integrity of the smart meter arrangements and the delivery of data and communication services to the industry. Figure 1 below provides an overview of the regulatory framework as outlined in the Prospectus enhanced to give clear independence between the DCC and Code governance (as circled below).

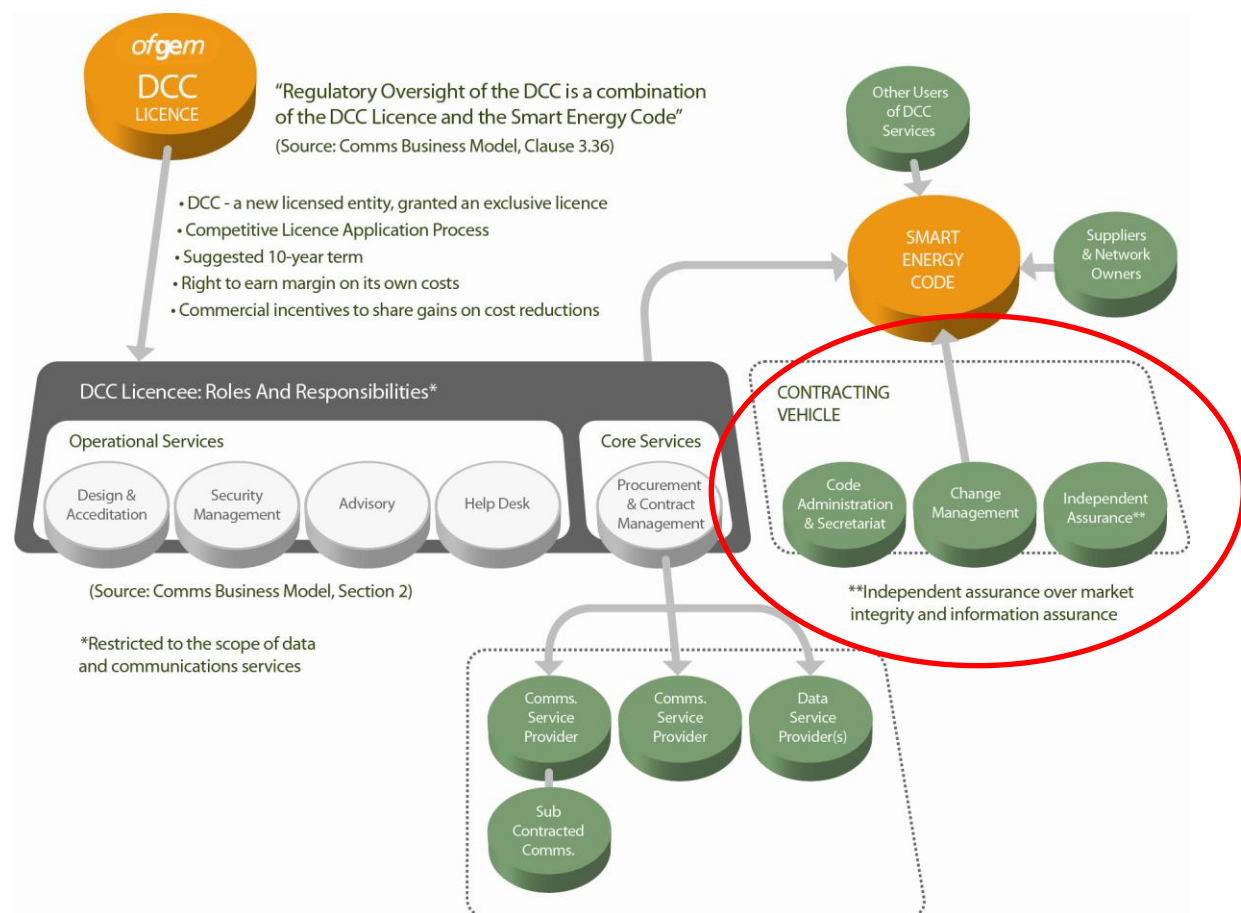


Figure 1: Genserv's Enhanced Model

N.B. This diagram excludes the multiparty Framework Agreement as identified in the Prospectus as the required provisions for accession could be included in the Code and it is expected that it will be a licence obligation to be a party to, and comply with, the Code.

In contrast to the DCC procuring the role of the Code Administrator, this Enhanced Model places the accountability on the users of the Code to ensure its effective governance. This correctly places the responsibility of defining the governance services collectively with the Code parties, i.e. the users of the services. This responsibility would naturally extend to managing a competitive tender process to procure a governance service provider. In order to facilitate this collective procurement on behalf of the industry as a whole, a contracting vehicle would be necessary to hold the service contract between the selected governance provider and the industry. This could be an existing individual company, potentially one of the users, but experience with existing arrangements has shown the creation of a separate, dedicated company, with the sole purpose to act as a corporate vehicle for parties, is an effective approach in these circumstances, e.g. SPAA Ltd, DCUSA Ltd and MRASCo Ltd. This separate company would be established by Code parties, i.e. licensed gas and electricity Suppliers and Network Owners, and all licensees will have an equal share of that company. New parties to the Code would be awarded a share on accession.

For the avoidance of doubt, this new company will merely act as a corporate vehicle to ensure collective effective procurement of services and will be a not-for-profit organisation. It will be subject to Companies Act obligations, e.g. Memorandum and Articles of Association, publishing of accounts, which will aid transparency. This service company will not have any influence over the contents of the Code⁵ and its operation, these matters being effectively reserved for the governance arrangements of the Code.

The governance services procured by industry (via this corporate vehicle) are likely to fall into three categories: code administration/secretariat; change management; and assurance. These could be procured as a combined service or as separate elements.

- **Code administration & secretariat** – a primary element of the service will be to efficiently operate the Code. This will clearly include administration duties such as meeting scheduling and organisation but also skilled, knowledgeable resource to draft meeting papers and perform high quality secretariat services. The potential impact of poor service delivery on parties and efficacy of the Code should not be underestimated.
- **Change Management** – central to the role is the management of proposed modifications to the Code. The change process must be inclusive, rigorous and efficient to enable change to be implemented in an informed and co-ordinated manner. Acting as a proficient “critical friend” to all parties will be an important responsibility for the service provider, along with the ability to conduct robust analysis to ensure that the decisions made are well founded and stand up to external scrutiny. In addition, the change management process should retain flexibility so as to

⁵ Except the shareholder agreement which will form a schedule to the Code.

encompass the ability to consider future market evolution to allow a managed transition to meet new and changing requirements

- **Assurance** – this element could include the assessment of new processes and functions to provide confidence to the industry that the changes to be implemented are done so effectively and that inter-operability between market participants is maintained. As such all parties, including the DCC, could be subject to this quality assurance whether it be a new entrant to the market or a requalification of existing parties or service providers. The need for independence in performing this role is paramount.

4. An Accelerated Smart Metering Programme

The proposed timetable suggests that the Code will Go-Live in Spring 2012 following implementation of the supply (and presumably the network) licence modifications. However, if the DCC is appointed in Autumn 2012 it is unlikely that a Code Administrator will be procured and operational before early Spring 2013. This will leave a period of year where the Code will need to be governed under interim arrangements against the backdrop of the mandated meter rollout scheduled for Summer 2012, up to nine months before the enduring Code Administrator is appointed. While it is feasible that the Programme could undertake this interim Code Administration role, it will place additional pressures on the limited regulatory and industry resource and could raise concerns over the regulator having to perform multiple roles, e.g. administrator, change manager and arbiter.

In order to address this issue, two options have been explored which either avoid or minimise the interim governance arrangements for the Code. Figure 2 below sets out the timelines for the base scenario (Prospectus) as outlined above, the Memorandum of Understanding (MoU) scenario and the Licence Modification scenario

- **Memorandum of Understanding (MoU) scenario** – an industry group potentially facilitated by the Programme would develop an MoU to give a shared commitment from gas and electricity Suppliers and Network Operators, i.e. prospective Code parties, to collectively procure an independent Code Administrator by competitive tender. Discussion on this could commence immediately with a view of implementing the MoU by Summer 2011. The requirements of the Code parties, the users of the service, could be defined over the next 3-6 months allowing an ITT to be issued with the Code Administrator appointed and operational by Spring 2012, coinciding with the Code Go-Live. It is envisaged that the corporate vehicle, as discussed previously, would need to be established in Winter 2011.
- **Licence Modification scenario** – utilises the licence modifications scheduled for early 2012 to require Suppliers and Network Owners to work together to ensure the effective, independent operation of the Code. This would effectively give prospective Code parties a mandate to procure an independent administrator. This obligation would complement the proposed licence requirement to be a party to, and comply with, the Code. Furthermore this collective imperative has parallels with licence obligations in existing Codes, e.g. IGT Licence Condition 9 where each Gas Transporter is required together with other relevant Transporters to establish and operate Network Code modification procedures. To achieve this they have tendered and procured a Code Administrator.

Under this scenario, while the licence modifications would be implemented in early 2012, the consultation period regarding the proposed obligations, would allow industry to mobilise in advance to develop its business requirements for a Code Administrator (required irrespective of approach). This would facilitate the competitive tendering exercise and appointment by Summer 2012 (with the establishment of the corporate vehicle likely to coincide with the Code Go-Live). While this means a three month interim period would remain, this is a significantly shorter period than the base scenario and could be managed effectively, e.g. change freeze.

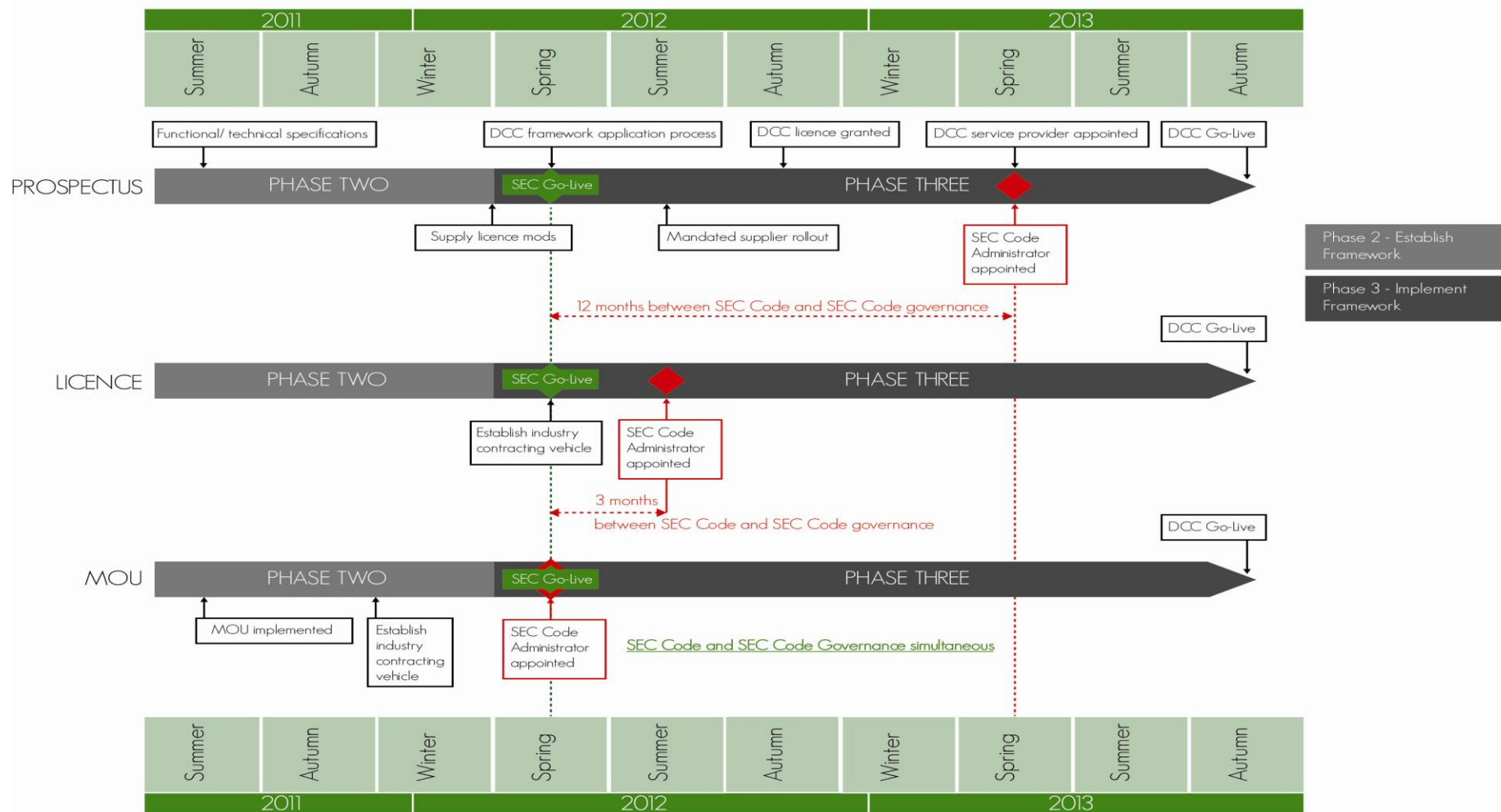


Figure 2: Implementation Timescales

5. Cost Benefit

As outlined in Section 3 we have proposed an Enhanced Model for governance of smart metering. The Enhanced Model removes the responsibility on the DCC to procure a Code Administrator and instead proposes the establishment of a contracting vehicle to procure the Code Administrator for the Code.

The Enhanced Model provides a number of benefits over the proposed model in the Prospectus, some of which are qualitative (accelerated timescales, effective management and representation & stakeholder engagement) whilst others are quantitative.

Return of Code Administration Cost Efficiencies to Industry

The model provides greater incentives on industry to reduce Code governance costs with all savings passed directly to industry rather than shared with the DCC. This is particularly important for small parties as it reduces their regulatory burden.

These returns should increase over time as the Code administration costs themselves are reduced through process improvements and competitive pressures as has been witnessed in other governance regimes. For instance the MRA governance costs have reduced by over 68% in real terms from a high of £6.6m (£10.4m in 2010 prices) to £3.3m. If applied to the Code and based on initial costs of £8.5m, resultant savings over the 10-year term would be excess of £22.5m as illustrated below, notwithstanding any increase in the scope of the Smart Metering Code.

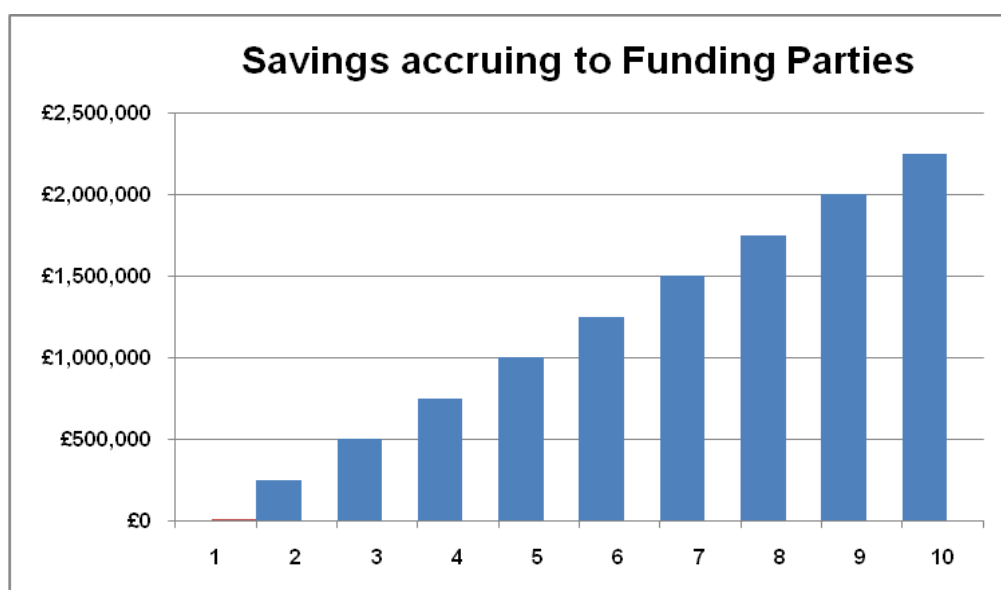


Figure 3: Savings Accruing to Funding Parties

Independent Challenge of the DCC

An independent Code Administrator can provide a robust assessment and challenge to both the DCC's operational costs and service levels but also challenge the costs of Code modifications that directly affect the DCC. This ensures that proposed solutions are appropriately critiqued and delivered in the most cost effective way. Based on DCC's annual costs in the region of £250m, robust challenge to these operating costs and of modifications that directly affect the DCC could lead cost reductions in the region of 0.5% per annum, equivalent to savings of £1.25m per annum.

Other Costs

Other cost saving could result from:

- The avoidance of independent advice for the DCC to address any perceived conflict of interest arising from Code changes directly related to the DCC's governance or performance or changes proposed by the DCC which are directly beneficial only to the DCC or its service providers; and
- Reduction in compliance costs for the DCC and the Code Administrator through not having to demonstrate independent arrangements and regulatory compliance given the monopoly position of the DCC and the contractual relationships between the two organisations.

Overall Cost Benefits

Based on the cost items set out Table 1 below, which are expanded upon further in Appendix 1, the Enhanced Model offers cost benefits in the order of £25 million over a period of 10 years.

	Prospectus Model	Enhanced Model
Establishment of a Memorandum of Understanding (MOU) and set-up of a contracting vehicle	-	(£0.1m)
Cost of Independent Advice for the DCC	(£0.5m)	-
Return of Code Administration cost efficiencies to Industry	-	£11.25m
Independent challenge of DCC	-	£12.5m
Compliance Costs	(£0.5m)	-
Contractual framework efficiencies	(£0.2m)	-
Net Impact	(£1.2m)	£23.65m

Table1 – Cost Benefit Analysis.

This assessment of the cost benefits is indicative at this stage and must be treated as an estimate. Further work by the SMIP programme, including a series of workshops with other central bodies to appraise the cost benefit analysis is recommended. This will enable a more accurate review of the cost benefit analysis of the Enhanced Model over the Prospectus proposal for governance.

6. Effective Management

The Enhanced Model facilitates effective management of the smart metering governance and addresses a number of issues:

- Scope of the Code being wider than the DCC;
- Independence/Conflicts of Interest (whether real or perceived);
- Engendering stakeholder buy-in; and
- Practical considerations of procurement.

Scope of the Code

Whilst the detail of the Code is yet to be developed, the Prospectus sets out an indicative table of contents, which provides a good starting point for further industry and stakeholder engagement and dialogue. It is significant to note that the proposed Code is much broader than the DCC as set out in Table 2 below.

The scope of the DCC is covered principally in the Prospectus, Communications Business Mode; which outlines the initial DCC scope as having GB-wide communications function. This would provide secure two-way communications between a smart meter and a central communications hub to which smart meter data users (Suppliers, Network companies and other authorised third parties) would have access for specified purposes.

The DCC is therefore a delivery/operational function and, in simple terms, is acting as a monopoly enhanced data collector. There are several references in the Prospectus to further enhancing the role of the DCC, e.g. meter registration, but it remains the case that the DCC provides delivery and operational services as a participant in the industry, and no more.

The DCC therefore has a pivotal role in supporting these arrangements through the provision of Operational Services (Design & Accreditation, Security Management, Advisory and Helpdesk) and procurement of Core Services (Communications and Data). Given the importance of this role, we believe that once the DCC is appointed the new licensees primary focus should be the procurement, initiation and ongoing management of the above technical services rather than undertaking additional procurements, such as the appointment of the Code Administrator, which could be considered peripheral to their core function.

Ref	Appendix 3 Indicative Smart Energy Code Contents (DCC roles highlighted in green)
1	Definitions and Interpretations
2	Parties
3	Accession process
4	Smart Energy Code Panel
5	Modification procedure
6	Technical interoperability requirements and procedures
7	Commercial interoperability requirements and procedures
8	Meter Registration (to be confirmed)
9	Meter Installation, removal and exchange obligations and procedures
10	Meter access control and access authentication
11	Gateways, data exchange formats and commands
12	Transfer of data and commands to and from smart meters initiated by authorised parties
13	Data services provided by DCC
14	Responsibilities on Suppliers with respect to meter system operation
15	Responsibilities on Networks with respect to meter system operation
16	Implementation of measures concerning data privacy and consumer protection
17	Security and business continuity
18	Performance levels, performance monitoring and incentivisation
19	Business processes
20	System and process assurance
21	Billing and payment processes
22	Reporting
23	Interfaces with other industry agreements
24	Dispute resolution
25	Limitation of liability and other provisions

Table 2 – Content of the Smart Metering Code.

Independence/Conflicts of Interest

The DCC is likely to operate on a commercial basis and as such will have an incentive to increase revenues and lower its costs. It should therefore not have wider market responsibilities that may give rise to real or perceived conflicts of interest.

The DCC will operate in an environment which is increasingly competitive and dynamic. It must also, however, comply with extensive regulation given its monopoly position. If the DCC does appoint the Code Administrator, both organisations will have to undertake, at additional cost, steps which demonstrate independent arrangements and regulatory compliance. This is similar to the telecoms sector where British Telecom have established, at considerable cost, an Equality of Access Board (EAB) to monitor compliance and provide reporting to the regulatory authorities. The compliance team works closely with Ofcom and the industry at large to establish best practice and to share progress on their compliance programme as appropriate. From 2004, British Telecom has published an Annual Compliance Report which measures their progress. These reports are also independently assured, again incurring additional costs.

Further, the Code Administrator will need to demonstrate that they are truly independent of all categories of Code signatory. For instance, in the event of a modification having a significant impact on the commercial operations of the DCC, then this modification needs to be demonstrably progressed in a transparent and equitable way showing no undue preference to the DCC. This principle equally applies where another category of signatory to the Code (e.g. Suppliers, Network Owners, etc.) is solely responsible for the appointment and contract management of the Code Administrator.

In addition, a key role for the Code Administrator should be to facilitate independent challenge of proposed DCC modifications and issues. This is akin to the “*Critical Friend*” role as detailed in Ofgem’s Code Governance Review. The Code Administrator should test the appropriateness of the analysis and the conclusions drawn from it in respect of any proposed modification. This ensures that where modifications are likely to significantly impact upon smaller participants (however defined) and/or consumers, appropriate representatives can be alerted. Likewise any issues or queries that have been raised by small participants or consumer representatives are appropriately addressed. If the Code Administrator is contracted to the DCC then these roles could be seen to be compromised.

Practical Considerations

An obligation on the DCC to procure and manage the Code Administrator may also introduce a number of practical issues. As currently proposed the DCC will have a licence with a 10-year duration. This period is significantly longer than the tenure of existing Code Administrators/Intelligent Secretariats who are subject to competitive tendering.

If the Code Administrator contract to be for a period of less than 10 years then the DCC will need to undertake additional procurement exercises, an activity peripheral to their core data and communications role as noted above. In addition, alignment of the DCC licence and Code Administrator could result in a 'cliff edge' of contract termination/renewals for the DCC, its agents and the Code Administrator. This increases uncertainty at a time when the industry will want a Code Administrator to be in place and operating at full capacity during any transition.

Engendering Stakeholder Buy-In

As well as being wider than the DCC's functions, the Code will inevitably require input/liaison from a wider stakeholder community than just the signatories to the Code. These will include Metering Agents (meter operators, meter asset providers, data collectors, meter reading agents, data retrievers and data processors), other market bodies such as Elexon and Electralink, and organisations such as micro-generators and members of related schemes (e.g. Micro-generation Certification Scheme, Feed-In Tariff Scheme, Renewable Heat Incentive and the Green Deal) as and if energy efficiency/carbon management come under sphere of influence of the Code.

All these stakeholders will have some interest in broader retail processes such as Erroneous Transfers, Debt Assignment, Exports, Address Maintenance, New Connections, Disconnections and a range of consumer services crucial to support energy efficiency schemes.

The stakeholder community and especially those with licence conditions to support the roll-out and ongoing operation of Smart Meters will favour enduring governance arrangements which allows the industry to govern itself whilst striking an appropriate balance between accountability, responsibility and regulatory control. Most importantly it places the responsibility for effective governance with the Code parties, i.e. the users rather than a third party (the DCC).

The Enhanced Model operates in a way with which the industry is familiar and allows DECC/Ofgem to retain the same level of regulatory oversight as achieved via a single price-controlled licence holder. Whilst funding and voting arrangements are still to be determined each of the Voting Models set out in Appendix 2 adhere to the findings of the Code Governance Review and provide a clear and central role for the regulator.

Such arrangements would engender stakeholder buy-in and reduce the risk of any market participants challenging, and thereby delaying, the adoption of new licence conditions, accepting that the Secretary of State could force through such conditions under the terms of the Energy Act.

7. Industry Representation and Engagement

One of Ofgem's principles for good governance is the promotion of inclusive, accessible and effective consultation. While this clearly encompasses the detailed processes for decision making, particularly the change procedure, the fundamental issue here is about representation. The key question is "Do all stakeholders have an appropriate level of influence over the decisions that are made?" Gemserv's experience is that when developing governance arrangements, the debate will focus on what is meant by "appropriate" and inevitably gravitate towards two heavily inter-related issues: voting and funding.

However, before we discuss these issues, there are some important specific policy elements, strongly linked to the above, which need to be considered separately i.e. regulatory protection, decision authority, relevant objectives, consumer involvement, voting and funding.

Regulatory Protection

The Code will be the core agreement to govern the retail smart arrangements, amendments to which could have profound impacts on the operation of the market and services to consumers. As with all industry codes, it is essential for there to be robust checks and balances to ensure regulatory integrity, i.e. Ofgem must have rights for intervention enshrined within the Code. However, these checks and balances need to be proportionate to the potential impact on the market so Ofgem's limited resources are not diverted by dealing with relatively minor operational changes, e.g. amending a field on a data flow in a data transfer catalogue. This is recognised in Ofgem's Code Governance Review where the role for self-regulation is acknowledged as playing a key role going forward – *"a large number of modification decisions could be addressed by self-governance with the potential to reduce costs and facilitate faster implementation of change proposals."*

However, there clearly will be aspects of the Code where it is considered that any amendment should receive approval from Ofgem before implementation. This can be achieved in two ways:

- **Regulatory Priority Provisions (RPP)** – at the outset identify specific sections and/or clauses which will require Ofgem's approval. This is the approach adopted for industry agreements such as the MRA and SPAA. The advantage of this is that there is clarity as soon as a change is raised, whether it will need regulatory approval or not. The downside is that unforeseen consequences may arise which mean that an apparently innocuous clause could have a significant impact on key stakeholders.⁶

⁶ However it is noted that this has never been an issue in either of the retail codes (MRA and SPAA) over the last decade.

- **Significant Code Reviews (SCR)** – the Code could be subject to the SCR or require Ofgem approval (“reformed status quo”) for certain modifications as per the provisions set out in Ofgem’s Code Governance Review. While this would make this compatible with some other Codes (BSC, UNC and CUSC), the concern is that this could lead to the late redirection of change proposals.

There has already been significant debate over Ofgem’s three path model and the licence provisions for this approach have already been implemented covering the BSC, UNC and CUSC. While the retail agreements are not within scope of these provisions, the importance of the Code and its central role in transforming the energy market make it hard to envisage that it would not be subject to the same regulatory rules. It would make sense to ensure all significant agreements/codes are within scope of SCRs, as a key purpose is to facilitate co-ordinated consideration and change across the industry for significant issues. Clearly the practical application of the SCR is still in its early stages but, assuming the principles are faithfully applied, this approach would appear to afford an appropriate level of regulatory protection with regard to the Code.

Furthermore, other protections could be built into arrangements whereby any Code decision could be appealed by any party to the Code. This is an important protection for smaller parties who may be concerned over the dominance of major participants in decision making, but also places Ofgem in an important role as arbiter. In addition, in keeping with the Code Governance Review conclusions, this appeal right could be extended to a defined consumer body. The appeal route could either be direct to Ofgem or via an interim forum.

In both current retail agreements, a forum of all parties is convened to hear an appeal before reference to Ofgem. The MRA experience is that of the 3,270 changes raised over the last decade (1998 to 2009), there have been 37 appeals to the MRA Forum, of which less than a quarter (nine) have been escalated to Ofgem for decision (see Figure 4 overleaf).

It is Gemserv’s view that appeal rights for all parties are essential, including the consumer representative(s). Ofgem have a central role in the appeal process but there is merit in using interim forums before a decision is appealed to them. This ensures every opportunity is available to resolve an issue within the self governance route and, as demonstrated in Figure 4, will reduce the appeals to Ofgem.

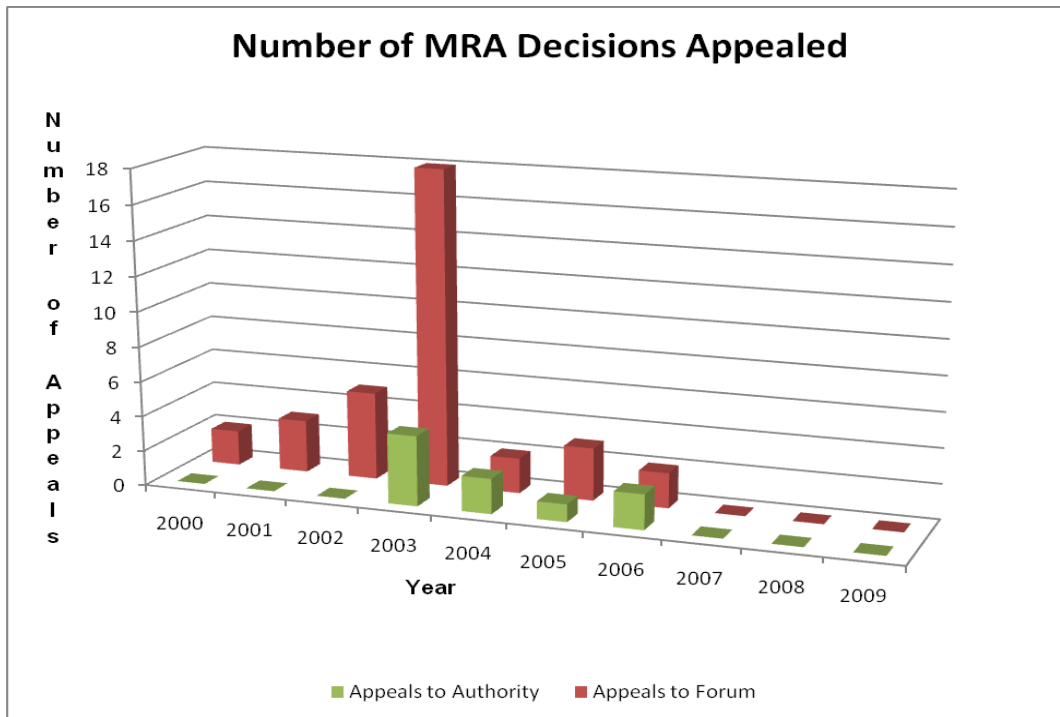


Figure 4: MRA Appeals Escalated to Ofgem

Decision Authority

Different industry agreements and codes adopt differing structures to execute the authority to make, and endorse, decisions. In the industry today, there are many variants of panels and executives that perform this role, but a central debate is whether agreement/code decisions should be made by committee of experts or by representatives of the parties.

The case for a committee of experts is that they can provide an independent view of issues without being required (and potentially constrained) by representative duties. It also allows these experts to be appointed primarily according to their individual competencies, rather than because they come from a particular market constituency (albeit often the committee's composition does require experts from each constituency to ensure a broad church of perspectives). The counter argument is whether it is feasible in reality for an individual to detach himself/herself from their host company or constituency from which they originate, i.e. in practice it morphs into a representative role. If that is the case it can be argued that it is preferable to appoint a representative committee from the outset with a clear responsibility to advocate the views of their constituencies. This ensures absolute clarity of the role and associated responsibilities avoiding the potential compromise by individuals between expert and representative positions.

A further point worth noting regards the practical arrangements for decision making specifically for changes to the Code itself. For many industry agreements/codes, there is a two tier approach whereby modifications are considered by sub-groups, e.g. workstreams under the UNC or the

Development Board under the MRA. However, these sub-groups can have differing levels of authority – the two main approaches assuming a self governance modification) are:

- The sub-group recommends a modification to the panel/executive for approval/rejection; or
- The sub-group has delegated authority to consider modification proposals. The discussion and voting takes place at that sub-group either rejecting or approving the proposal. This decision does not require approval by the panel/executive before implementation (although clearly subject to appeal).

This second approach means that the panel/executive focuses on strategic issues such as policy, budgets, compliance, market developments and accessions, delegating the operation of the change control processes to the sub-group.

Gemserv's experience in the MRA and iGT UNC arrangements (and indeed governance of the Scottish water market) is that clarity of responsibility is critical and, where a representational role is adopted, it encourages active information sharing and debate prior to the executive committee or panel meetings. This facilitates an informed discussion at the meetings and can often facilitate the making of pragmatic decisions to the benefit of all parties. The use of a sub-group with delegated powers has proved an effective division of responsibility and facilitates the wider participation of parties with voting roles in the operational governance of the agreement/code.

Relevant Objectives

Existing codes have relevant objectives as stated as part of the enabling licence condition while the retail agreements do not explicitly set out these out. While it has been argued that a too strict interpretation of objectives can inhibit change, a counter argument is that the necessary broad description of the objectives can mean it is often difficult to discount any change as indirect relationships can be nearly always be identified.

Nevertheless, it is Gemserv's view that providing a number of key objectives, at an outcome based level, is helpful to provide a set of criteria that parties raising modifications must demonstrate relevance and against which the modification is assessed. Accordingly, we would propose that a limited set of relevant objectives are established for the Code. While these should be determined in discussion with industry, we would expect a primary objective should be the promotion of effective competition in the supply of gas and electricity and potentially metering services

Consumer Involvement

The protection of consumer interests is paramount and should be “designed-in” to the Code from the outset. Accordingly it would be expected that the consumer organisation, as defined within the Code, would have a seat on the executive/panel. While some current codes/agreements provide for the consumer representative to attend meetings or raise modifications/appeal decisions, others provide for voting rights. Furthermore, a number of existing industry agreements, notably the MRA, have acted as a “critical friend” for consumer organisations well before the proposals in the Code Governance Review to act in that capacity.

It is Gemserv’s belief that a consumer representative should have a voting seat on the executive/panel together with the right to raise changes/modifications and appeal decisions to the interim forum with the final recourse to Ofgem.

Voting

As highlighted at the start of this section, voting is one of the two factors which is the subject of most debate in governance design. Clearly the approach adopted has a direct correlation to the level of influence each party will have on individual decisions. The inherent tension is providing sufficient voting rights to encourage active participation by smaller parties whilst at the same time avoiding a minority of parties/market being able to veto change or impose disproportionate costs on the majority. There are several primary design aspects here which will determine the voting structure as outlined:

Voting Criteria

Frequent criteria used to determine the share of the vote include:

- Metering points – this effectively uses market share by premises (this is the approach adopted by the MRA and SPAA);
- Throughput – this uses market share by take e.g. kWh; and
- One member/one vote – this can be a single vote for each panel member or one vote for each party to the agreement/code.

Voting Caps

Whether there is a cap on the percentage of the vote one party can exercise irrespective of market share. While the MRA does not have voting caps, a 20% cap applies to every supplier in SPAA (this reflects the characteristics of domestic gas market shares by meter points).

Voting Thresholds

At what percentage of support that a resolution required to be passed. This is often a majority but can be a higher percentage to avoid a few large parties being able to carry a decision.

Constituencies

Whether the parties are split into constituencies: often each resolution requires the determined voting thresholds to be met in each constituency in order for it to be passed.

A particular characteristic of the Code is that as it is a dual fuel agreement , therefore it could be argued that gas and electricity parties should have separate constituencies especially if a Code amendment would only impact one of the fuels.

Picking up on comments from small Suppliers, there is an argument that they should have their own constituency to avoid being disenfranchised, as they believe their vote will have limited influence. It is worth noting that during the development of the SPAA, a similar concern was raised by I&C only Suppliers – this issue has not been resolved to date.

Consumers

Whether the consumer representative should have voting rights and the type of vote awarded, i.e. percentage, single vote or veto. This is discussed above.

Demonstrable Interest

Whether parties can only vote on resolutions where they can demonstrate a legitimate interest, e.g. a supplier solely licensed to supply electricity could not vote on a gas only data flow modification. Table 3 below provides a qualitative assessment of these multiple aspects of voting design.

Option	Positives	Negatives
Voting criteria		
Meter points	Voting share closely reflects number of premises served	Favours particular type of supplier i.e. domestic
Throughput	Voting share reflects energy supplied	Favours particular type of supplier i.e. I&C
One member/one vote	All parties have equal vote irrespective of size	Voting share not commensurate with market share
Voting caps	High thresholds can ensure all decisions have significant	Voting share not necessarily commensurate with market

	support	share
Voting thresholds	Avoids parties with very large market shares dominating vote share	Could thwart any change process i.e. very few changes meet threshold
Constituencies	Ensures parties with differing perspectives are recognised in decisions	Could lead to dogmatic confrontation
Demonstrable interest	Parties can only influence the outcome of resolutions where they have a legitimate interest	Can be difficult to define what constitutes legitimate interest

Table 3: Aspects of Voting Design

As can be clearly seen, each option has its own merits, and shortcomings, and it will be a challenge to identify an approach that will wholly satisfies every party. However, using our extensive knowledge and experience of governance regimes, we have provided three potential models for the Code as given in Appendix 2. It is acknowledged that there are a great number of variants to these models (as well as detailed processes to support them) and these options are merely illustrative to help stimulate debate.

However, to aid understanding, we have limited the potential combinations in the models by making the fundamental assumption that the Code will be subject to the Code Governance Review conclusions, i.e.

- Modifications will be considered under three pathways: self governance, reformed status quo (mod requires Ofgem approval) and SCRs;
- The decision authority decides the modification pathway (except SCRs); and
- Consumers will have a voting seat on the decision authority and a right of appeal.

Funding

The second critical issue relates to the funding of the Code. For clarity, we have limited this to the support services required to administer the Code and have not included the data or communications services provided by the DCC and its agents (it is expected that the latter will be subject to price control under the DCC licence).

The old adage is often quoted in these debates “*no representation without taxation*”. This is shorthand for the principle that the level of funding should be commensurate with the share of the vote, e.g. if a party has 25% of the vote, that party should contribute 25% of the costs of running the Code. While there is clear logic in this approach, parties with limited resources (which is common with new entrants), may be unable to finance their vote. The counter argument is that there should be a relationship with a party’s use of the service being provided and often a proxy for this is the meter points that that party serves.

For the Code, Gemserv believes that if the design of the voting arrangements is to address the issue of inclusivity and encourage participation in the decision making process, it is inevitable that a direct relationship between the share of the vote and funding will need to be weakened although not severed. If this is the case, the use of market share by meter points is the primary candidate for determining the financial contribution for individual parties.

8. Conclusion

Good governance is the key to success in the deployment, ongoing operation and evolution of smart metering. This paper has provided an evidence based assessment of an Enhanced Model to provide effective governance regime for the Code. Gemserv's solution is a model where delivery and governance are separated, enabling an accelerated implementation of enduring governance for the Code with a positive cost benefit, whilst assuring effective management and facilitating engagement of all parties.

It is a model that will benefit consumers, all industry participants and the regulator, and meets all the attributes for good governance as defined in Ofgem's Code Governance Review:

- **Independence** – by divorcing responsibility for administering the Code from the DCC;
- **Cost effectiveness** – by using the market to procure code governance services, the full benefit of which is returned directly to Code parties, as well as avoiding interim arrangements through advancing, by up to 12 months, the enduring governance of the Code. This could save up to £25m over 10 years;
- **Inclusivity** – by achieving buy-in through assigning collective responsibility and accountability of the Code to the industry as a whole;
- **Proportionality** – by enabling the industry to embrace self governance while ensuring strong regulatory protection of consumers and all industry participants irrespective of market share;
- **Robust analysis** – by providing the freedom for independent challenge of the DCC for the services offered and modifications to support market evolution;
- **Transparency** – by establishing a “not-for-profit” shell company, subject to Companies Act provisions and disciplines, collectively owned by the industry; and
- **Flexibility** – by enabling the Code to quickly respond to market developments by liberating the cost of governing the Code from the price control regime.

It is imperative that the debate is had now on the design of the governance regime for the Code so that timely arrangements can be put in place to provide the required regulatory framework to ensure enduring effective governance from the day the Code is implemented.

Appendix 1 – Cost Benefit Analysis

Title:	Development of a Memorandum of Understanding (MoU) and establishment of a contracting vehicle	
Description	<p>The legal costs associated with establishing a limited company (contracting vehicle) will cover:</p> <ul style="list-style-type: none"> • Development of an MoU. This is likely to have some +30 signatories and will confirm the intent to set-up and form a contracting vehicle for the provision of Code governance. • Company registration of a new Limited Company. • Draw up Articles of Association for the new Limited Company setting out the objectives of the Company, identifying members/shareholders and constitution of the Board. • Issuing of share certificates (if applicable). • VAT registration. • Facilitate the process and appointment of Board members. • Facilitate the process for the appointment of a Company Secretary (if applicable). 	
Prospectus Model		Enhanced Model
<p>No requirement for and therefore no costs associated with the establishment of an MoU or set-up of contracting vehicle.</p> <p>DCC will be the contracting vehicle and will be appointed in Autumn 2012</p>		<p>The key incremental costs comprise:</p> <ul style="list-style-type: none"> • Costs of establishing an MoU between Suppliers and network businesses to agree to the 'vision' for Code governance; and • Costs of establishing the contracting vehicle.
Cost Type:	One-off cost.	
Materiality:	£100k - based upon two indicative costs received from leading energy industry legal firms.	
Cost Benefit (over 10 years)	(£100k).	

Title:	Cost of Independent Advice for the DCC	
Description:		
Prospectus Model	Enhanced Model	
<p>The Prospectus recognises that there may be issues related to its own activities where DCC could have a perceived conflict of interest and the regulator and other Code signatories may need to obtain independent advice. Examples include:</p> <ul style="list-style-type: none"> • Changes to the provisions of the Code related directly to the DCC's governance or performance. • Changes are proposed by the DCC which are directly beneficial only to the services provider of the DCC. <p>There is also a risk of a higher propensity to challenge/appeal changes where the governance of the Code is under the responsibility of the DCC. This could lead to additional costs to the industry in ensuring a transparent and fully independent appeals process (notwithstanding any right of appeal to the Authority).</p>		<p>The contracting vehicle would be established and owned by the Industry participants (Network Owners and Suppliers) either through a MoU and/or as a consequence of a licence condition.</p> <p>In turn this contracting vehicle will undertake a competitive procurement for the appointment of the Code Administrator. Any potential for conflict of interest for market participants is therefore one step removed and the independence of the Code Administrator from the DCC reduces the need for additional external advice for issues directly related to the DCC.</p>
Cost Type:	Recurring.	
Materiality:	Estimation of £25k - £50k in legal fees per annum.	
Cost Benefit (over 10 years):	£250k - £500k.	

Title:	Return of Code Administration cost efficiencies to industry	
Description		
Prospectus Model	Enhanced Model	
<p>The DCC would retain a proportion (assumed to be 50%) of any cost savings achieved as it is a "for-profit" company".</p> <p>Potential cost savings could arise from:</p> <ul style="list-style-type: none"> • Reduced scope of Code Administration services over time; or • Improved procurement practices. 	<p>It is proposed that the contracting vehicle set-up to procure the Code Administrator would be a "not for profit" company similar to DCUSA Limited or MRASCo Limited with clearly defined objectives.</p> <p>Under the Code this company would set out and agree an annual budget with Code signatories. This would include the contracted charges for the Code Administrator, provisions for any external legal advice and a general contingency.</p> <p>These costs would be reconciled at Year End and any under-expenditure returned to parties in accordance with the agreed funding arrangements.</p> <p>This places a natural incentive on industry to reduce Code Governance costs. As well as ensuring that 100% of any budgetary under-spend is returned to funding parties (this may not be the case under a price control regime), cost savings should also accrue over time based on efficiencies implemented by the Code Administrator. These could arise from:</p> <ul style="list-style-type: none"> • Process improvements; • Reduced scope of the Code Administration function over time or reduced volumes of work, e.g. lower volumes of new entrants requiring risk based assurance to demonstrate compliance with the Market Design; • The contracting terms deployed, e.g. a mixture of fixed and transactional based charges and extension clauses which encourage downward pressure on charges through the threat of re-tendering; and • Improved procurement practices. <p>As a consequence, all savings (however derived) would be returned to funding parties rather than being retained by the DCC as additional profit.</p> <p>Using the MRA as an example: governance costs have reduced by 68% in real terms over 10 years, from £6.5m per annum (£10.5m at 2010 rates) to £3.3m per annum, with an increased scope of services (e.g. ECOES).</p> <p>The costs of running the Code could be similar to the original costs of the MRA given its wide scope including administration/secretariat, volume of</p>	

		<p>expected change proposals and risk based assurance for existing and new participants to demonstrate compliance with the new market arrangements.</p> <p>Based on initial annual costs for administering the Code of £8.5m and the application of a 50% reduction over the 10-year term results in a reduction of governance costs in excess of £22.5m, notwithstanding any increase in the scope of the Smart Metering Code.</p> <p>Under a “not-for-profit” model, 100% of this cost reduction would accrue to funding parties, whilst under a benefit sharing model with 50% of the savings being retained by the DCC, only £11.25m of this benefit would accrue to funding parties.</p> <p>The materiality of this benefit is therefore stated as £11.25m, which is the incremental benefit to funding parties.</p>
Cost Type:	Recurring.	
Materiality:	Year on year reductions in Code administration costs in the order of £500k per annum.	
Cost Benefit (over 10 years):	£11.25m.	

Title:	Independent challenge of DCC	
Description	<p>A robust assessment and challenge to DCC change requirements and its enduring operational costs by both market participants and regulators is essential for an effective change management process and demonstration of value for money.</p> <p>It is important for the modifications process to be cost effective – both in terms of direct costs attributable to the Code Administrator and in terms of the participation costs for stakeholders and the resultant costs of implementing any agreed change proposals.</p> <p>Whilst the DCC has incentives to challenge the costs of its service providers (i.e. data and communication agents as well as the Code Administrator), it is unclear how or who will provide independent challenge the DCC's costs in respect of its proposed duties under the Code.</p>	
Prospectus Model	Enhanced Model	
	<p>The Code Administrator's commercial relationship with the DCC presents a potential conflict of interest in respect of its ability to challenge the DCC's costs and solutions and its role as '<i>critical friend</i>' to Code parties in respect of any changes impacting the DCC.</p>	<p>The Code Administrator would be fully independent of the DCC and could provide independent and robust challenge of the DCC's costs. Whilst this challenge could be provided by the Authority, it needs to be recognised that this will increase the regulatory burden and potentially the volume of appeals as noted previously.</p> <p>Assuming the volume of modifications that directly affect the DCC in any one year equate to £1m, robust and effective challenge to ensure that proposed solutions are appropriately critiqued and delivered in the most cost effective way could result in reductions of 10%, equivalent to £1m over the 10 year period.</p> <p>In addition, it is understood that the DCC's annual costs (including service provider costs) are likely to be in the region of £250m. Consequently, where a robust challenge to these operating costs results in additional savings, these are likely to be of significant magnitude. Assuming that such challenges leads to cost reductions in the region of 0.5% per annum, this results in savings of £1.25m per annum.</p>
Cost Type:	Recurring.	
Materiality:	£1.25m per annum.	
Cost Benefit (over 10 years):	£12.5m.	

Title:	Reduction in compliance costs	
Description:	<p>The DCC will need to comply with extensive regulation given its monopoly position. If the DCC does appoint the Code Administrator, both organisations will have to undertake, at additional cost, steps which demonstrate independent arrangements and regulatory compliance.</p> <p>Further, the Code Administrator will need to demonstrate that they are truly independent of all categories of Code signatory. For instance, in the event of a modification having a significant impact on the commercial operations of the DCC, then this modification needs to be demonstrably progressed in a transparent and equitable way showing no undue preference to the DCC.</p> <p>Parallels can be drawn with the compliance costs for the GB electricity industry in respect of business separation and also with parallel industries such as the British Telecom's compliance regime.</p>	
Prospectus Model		Enhanced Model
<p>Without this 'self-policing' relationship, it would be necessary to provide alternative controls via a more robust compliance programme, which will lead to increased monitoring and reporting costs for both the DCC and Ofgem.</p> <p>To ensure compliance with the Code, the DCC may need a full-time regulatory compliance officer and incur internal monitoring and reporting costs to demonstrate compliance.</p>		<p>The Enhanced Model provides for self-policing of the DCC's compliance with the Code, which should lead to a reduction in the DCC's compliance costs.</p> <p>The appointment of the Code Administrator removes the real or perceived conflict of interest arising from the contractual relationship with the DCC. This in turn negates the need for additional compliance measures. By reducing the DCC's regulatory compliance team by 1 FTE at an indicative cost of £50,000.</p>
Cost Type:	Recurring.	
Materiality:	£50,000 per annum.	
Cost Benefit (over 10 years):	£500,000.	

Title:	More efficient contractual framework	
Description:	In the Prospectus it is proposed that a new Code is introduced to govern the operation of the smart metering system. Suppliers, Network Owners and the DCC by licence condition would be required to comply with the Code, and also to sign a Framework Agreement to give contractual effect to the Code's provisions.	
Prospectus Model		Enhanced Model
A new industry Framework Agreement will need to be implemented to give contractual effect to the Codes provisions.		The Enhanced Model proposed does not necessarily require a Framework Agreement. By introducing the Code earlier either through Option 1 or Option 2 as set out in Section 4 (Accelerated Smart Metering Programme) should remove the need for the establishment of a Framework Agreement and the avoidance of external legal costs.
Cost Type:	One-off.	
Materiality:	£200,000.	
Cost Benefit (over 10 years):	£200,000.	

Appendix 2 – Illustrative Voting Models

The models described below outline governance designs that could apply to the Code. They have been based on the discussion in Section 7 of this paper and are included here to stimulate debate on the potential appropriate governance framework. As highlighted previously, it has been assumed that the Code will be subject to the Code Governance Review conclusions: i.e.

- Modifications will be considered under three pathways: self governance, reformed status quo (mod requires Ofgem approval) and SCRs;
- The decision authority decides the modification pathway (except SCRs); and
- Consumers will have a voting seat on the decision authority and a right of appeal.

Accordingly, while these requirements are reflected in the models, they, by definition, remain constant for each model – these aspects are shaded for ease of reference.

It is stressed that these three models are merely illustrative and there are clearly multiple other models which are, no doubt worthy of review. However, at this stage of the Programme, Gemserv believe it is more useful to begin introducing ideas of potential governance arrangements for the Code to facilitate the discussion and seek to identify where there is a common view and also highlight the areas where opposing opinions are held. We believe this outline of ideas will help achieve this and enable focus on a few governance models which can then be subject to comprehensive assessment by the industry.

MODEL A – REPRESENTATIVE CONSTITUENCY				
	CODE PARTIES	EXECUTIVE/PANEL	OFGEM	CONSUMERS
REGULATORY PROTECTION	RIGHT OF APPEAL FOR ALL FIRST TO A FORUM & THEN OFGEM	DECIDES MOD PATHWAY (EXCEPT FOR SCR)	SCR OR MOD APPROVAL OPTIONS	RIGHT OF APPEAL
DECISION AUTHORITY		CONSTITUENCY REPRESENTATIVES STRATEGIC MANAGEMENT ROLE	OBSERVER ON EXEC/PANEL	SEAT ON EXEC/ PANEL
MODIFICATIONS	MODIFICATION SUB GROUP WITH DELEGATED AUTHORITY		POWER TO OVERRIDE PATHWAY CHOICE	
VOTING MECHANISM	CONSTITUENCIES: LARGE SUPPLIERS SMALL SUPPLIERS NETWORKS 1 PARTY 1 VOTE MAJORITY IN EACH CONSTITUENCY DEMONSTRABLE INTEREST	1 MEMBER 1 VOTE UNANIMOUS DECISIONS	NON VOTING TO PROTECT DESCRETION	VOTING EXEC/PANEL MEMBER

Figure 4: Representative Constituency

Model A – Representative Constituency

In this model, the executive/panel would comprise of representatives from each constituency (in this example large Suppliers, small Suppliers and networks). A consumer representative will have a voting seat with Ofgem, DCC and settlement bodies as non-voting members. The executive/panel would provide strategic direction and make decisions on non-modification proposal issues, e.g. policy, budgets, compliance, market developments and accessions. For modifications, the executive/panel would decide which path a proposal would follow (unless subject to SCR) and then pass it to a modification sub-group for consideration.

The proposal would be considered by the sub-group and, where there is a demonstrable interest, each party would be entitled to vote on the change. To be passed, a majority (in number) in each constituency that has expressed an interest would need to be in favour of the change. All constituencies would have to have a majority vote in favour for the change to be approved (final approval by Ofgem may be necessary if not a “self governance” modification). This model incorporates an interim forum for appeals.

MODEL B – EXPERT EXEC/PANEL: SIMPLE MAJORITY				
	CODE PARTIES	EXECUTIVE/PANEL	OFGEM	CONSUMERS
REGULATORY PROTECTION	RIGHT OF APPEAL FOR ALL DIRECT TO OFGEM	DECIDES MOD PATHWAY (EXCEPT FOR SCR)	SCR OR MOD APPROVAL OPTIONS	RIGHT OF APPEAL
DECISION AUTHORITY		EXPERTS PERFORM CHANGE & STRATEGIC MANAGEMENT ROLES	OBSERVER ON EXEC/PANEL	SEAT ON EXEC/ PANEL
MODIFICATIONS	MODIFICATION SUB GROUP CONSIDERS MOD & MAKES RECOMMENDATION	EXEC/PANEL ACCEPTS OR REJECTS RECOMMENDATION	POWER TO OVERRIDE PATHWAY CHOICE	CAN VOTE TO ACCEPT OR REJECT MOD
VOTING MECHANISM	VOTING SHARE DETERMINED BY PREMISES MARKET SHARE SIMPLE MAJORITY DEMONSTRABLE INTEREST	1 MEMBER 1 VOTE MAJORITY DECISION	NON VOTING TO PROTECT DESCRETION	VOTING EXEC/PANEL MEMBER

Figure 5: Simple Majority

Model B – Expert Exec/Panel: Simple Majority

In this case the executive/panel is made up from experts in the industry – they do not have any representative duties in performing this role. As an expert committee it may be appropriate for the DCC and settlement bodies to have voting rights as they should not be representing the views of their respective organisations. The consumer representative remains with a vote to accept or reject recommendations on modification proposals. However, it can be argued that a demonstrable interest test would apply so they would not vote on self-governance modifications (by definition, trivial consumer interest). For modifications, the executive/panel would decide the pathway as before, and while a sub-group would consider and, in this example vote on the recommendation on a premises market share basis, the decision to approve or reject the modification rests with the executive/panel (final approval by Ofgem may be necessary if not a “self governance” modification). This model includes an appeal right for all parties direct to Ofgem.

MODEL C – EXPERT EXEC/PANEL WITH CONSTITUENCIES				
	CODE PARTIES	EXECUTIVE/PANEL	OFGEM	CONSUMERS
REGULATORY PROTECTION	RIGHT OF APPEAL FOR ALL FIRST TO A FORUM THEN OFGEM	DECIDES MOD PATHWAY (EXCEPT FOR SCR)	SCR OR MOD APPROVAL OPTIONS	RIGHT OF APPEAL
DECISION AUTHORITY		EXPERTS STRATEGIC MANAGEMENT ROLE	OBSERVER ON EXEC/PANEL	SEAT ON EXEC/ PANEL
MODIFICATIONS	MODIFICATION SUB GROUP WITH DELEGATED AUTHORITY		POWER TO OVERRIDE PATHWAY CHOICE	
VOTING MECHANISM	CONSTITUENCIES: SUPPLIERS & NETWORKS SHARE DETERMINED BY THROUGHPUT (SUPPLIED/ SERVED) MARKET SHARE MAJORITY IN EACH CONSTITUENCY	1 MEMBER 1 VOTE MAJORITY DECISION	NON VOTING TO PROTECT DESCRETION	VOTING EXEC/PANEL MEMBER

Figure 6: Expert Executive/Panel with Constituencies

Model C – Expert Executive/Panel with Constituencies

This model combines elements of the two models above. First, comparable with Model B it includes an expert executive/panel with a consumer representative and observers from Ofgem, DCC and settlement bodies. However, a sub-group with delegated powers is used to consider modifications (as in Model A). Constituencies are reintroduced but a simple Supplier/Network split with the share of the vote on market share of throughput either energy supplied or distributed. A majority in favour for a modification would need to be achieved in each constituency to be approved. Appeal rights remain and revert to an interim step via a forum. No demonstrable test will be applied in this model.