



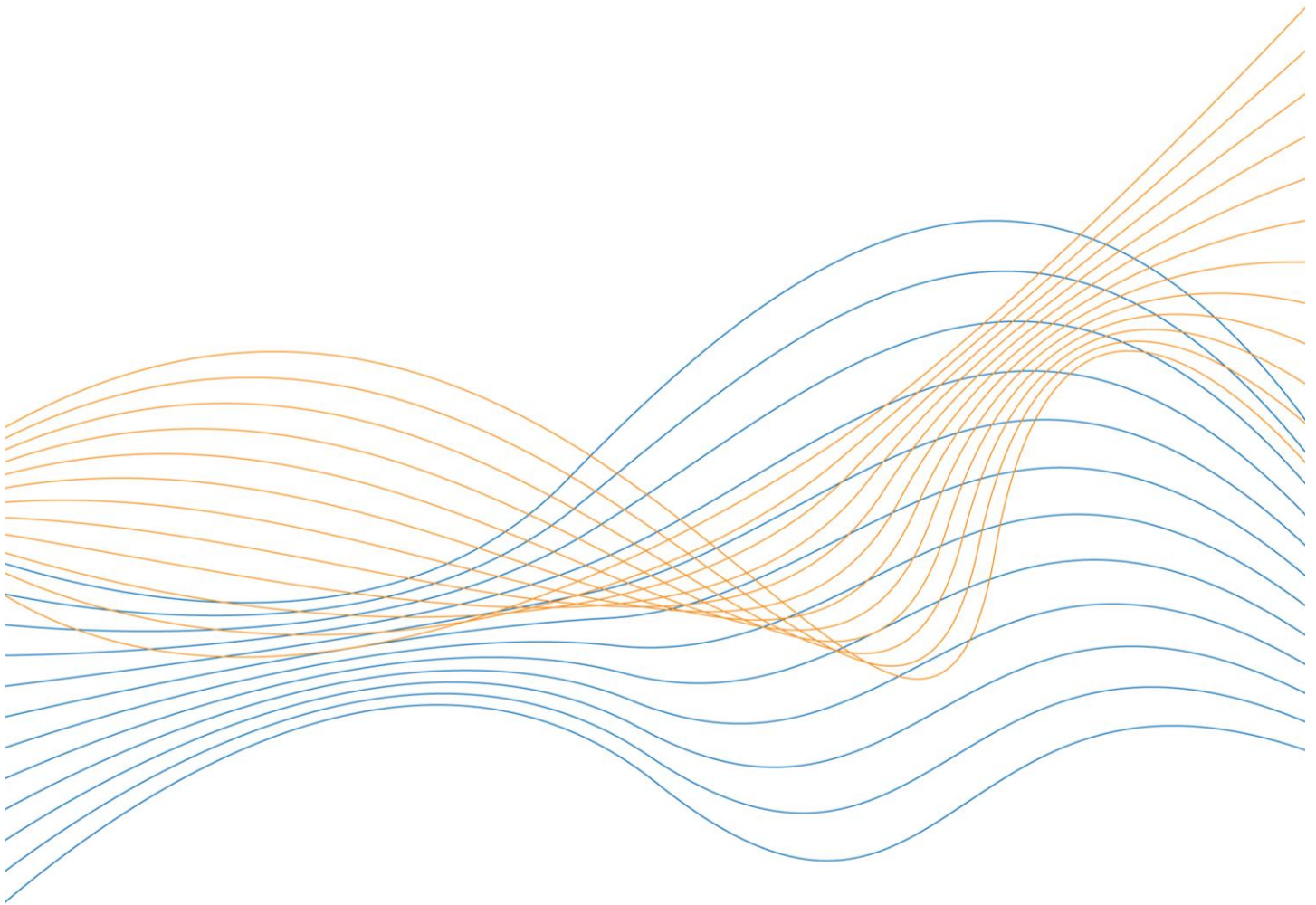
ElectraLink

## **Smart Metering Implementation Programme**

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Prospectus - Consultation Response

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# 1 Executive Summary

ElectraLink welcomes the publication of the joint DECC/Ofgem Smart Metering Prospectus and the detailed plans set out for an accelerated roll out of smart meters to every home and small business in GB. This document sets out ElectraLink's response to the prospectus. We have responded to all questions on which we have an opinion; both those where response was requested by 28<sup>th</sup> September and 28<sup>th</sup> October 2010.

The prospectus clarifies many of the issues that have been debated by industry, and sets a clear timetable for the establishment of the governance and commercial framework that will underpin the major transformation programme that lies ahead. With consumers' interests central to the programme, it highlights the challenge of securing public participation and buy-in while setting out roles and responsibilities of all the industry parties.

ElectraLink has consistently supported an evolutionary approach to the smart metering programme, and is fully supportive of focussing initially on the fundamentals: end to end systems and data security, access control, data retrieval, translation and initial smart grid functions. Combined with the proposed Smart Energy Code, the DCC will be a key enabler for simplification and development of energy market processes in the future.

ElectraLink fully support the proposed 'procure and manage' model. This has previously proven successful in delivering value, reliability and interoperability to the existing electricity market - in the guise of the Data Transfer Service (DTS) - and has ensured the technology used to deliver the service is current, robust and industry strength. Indeed, the DTS continues to support an ever growing volume of data, at a steadily decreasing overall cost, with stringent SLAs consistently exceeded month on month.

Our experience of responding to an evolving market was demonstrated following the advent of dual fuel in GB and the introduction of competition in metering services across gas and electricity. As a result ElectraLink developed the data transfer network's core underlying infrastructure and became GB's first central body to converge both the gas and electricity sector's respective protocols on the same core platform. These 'dual fuel' communications have enabled new economic and operational efficiencies for energy market participants across GB.

This document also outlines our thoughts on the development, content and enduring management of the Smart Energy Code. Our response draws on best practice models across a number of existing code arrangements, as well as highlighting key principles within the Ofgem Code Governance Review which we consider pertinent.

Ofgem's commitment to continue to examine opportunities for realising more ambitious targets for the rate at which suppliers must install smart meters will be key to building momentum during the interim period. ElectraLink supports the accelerated rollout of smart metering in advance of the DCC. However, significant rollout prior to the DCC can only occur if interim arrangements are put in place to minimise the supplier risk of stranded meter assets and un-economic IT investment. Such interim arrangements are also essential to ensure the best possible consumer experience for a smart meter customer changing supplier. ElectraLink believes interim arrangements can and should be delivered quickly, and that by building on existing infrastructure can be done in a way that is straightforward to integrate with the industry's current processes and systems. We are supportive of the work being done within the Ofgem subgroup looking at the potential to enable suppliers to rollout smart meters using the WAN and head end facilities of an interim provider, and receive meter data flows in formats compatible with existing systems. Interim arrangements must not, of course, undermine the DCC; on the contrary we believe that interim arrangements will support implementation and transition to the DCC.

ElectraLink's view is based on extensive experience in the specification, development and procurement of central data and communications management in the gas and electricity utility sectors, as well as our key roles in delivery of code governance services for SPAA Ltd and DCUSA Ltd. This has been further strengthened by our proactive and very detailed work

over the last two years to consult, define and implement a service to support smart meter rollout for early adopters. This has involved significant stakeholder engagement with government, the regulator, suppliers, Distribution Network Operators (DNO's), metering agents, comms providers, system integrators (SI's) and product vendors some of which have successfully implemented smart metering systems and smart grid programmes across the globe. We look forward to continuing our contribution to the development of the DCC and Smart Energy Code.

## 2 Questions

### 2.1 Prospectus

#### 2.1.1 CHAPTER 2 - The Consumer Experience

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

ElectraLink fully appreciate that a positive consumer experience will be vital ensure the success of the smart metering programme. As such, we would highlight the need for open standards that can enable interoperability of in-home display devices with the communication modules used in all compliant smart metering systems. This principle would empower consumers with a choice of IHD that best suits their needs, unconstrained by the particular HAN technology they have installed in their home.

We also suggest that in-home devices must be rigorously evaluated and include physical trials to ensure that it is as effective as possible in providing and safeguarding information to customers that leads to consumer confidence and ultimately the greatest possible benefits realisation.

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

ElectraLink are supportive of the privacy principles stated and comment further in our responses to the “Data Privacy and Security” document.

**Question 3\*:** Do you have any comments on the proposed approach to ensuring customers have a positive experience of the smart meter rollout (including the required code of practice on installation and preventing unwelcome sales activity and upfront charging)?

We are supportive of the proposed approach and would emphasise that international experience shows the importance of getting customer engagement right. A loss of consumer trust could be catastrophic for the programme.

As a general point we would emphasise that in order to maximise the consumer experience of change of supplier, effective interim arrangements are required to support the rollout of smart meters prior to the DCC. Such arrangements will allow the consumer to retain the benefits of having a smart meter when they change to a new supplier. Failure to adopt effective interim arrangements could lead to a situation where following a change of supplier event the new supplier is unable to access the smart meter remotely, resulting in consumer dissatisfaction as well as a stranded asset for the supplier. Interim arrangements must be able to support single and dual-fuel switching, in order to maintain consumer choice and competition.

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

We note the “Interim guidance – remote disconnection and remote switching to prepayment” published by Ofgem on 16<sup>th</sup> August 2010.

It is worth highlighting the national security risk that could be introduced by remote disconnection and switching technology. Extreme care must be taken to guard against the possibility of inappropriate use of the technology by malevolent actors, whether individual, organisational or state. Possible controls include systemic limitations on the scale of disconnection / switching, a requirement for multiple levels of authorisation, and of course authentication and non-repudiation of communications.

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

We can understand the reasons for not mandating provision of an IHD in the smaller non-domestic sector, but suggest that Ofgem monitor the extent to which the market delivers solutions and services which do maximise benefit realisation in the sector.

We agree that non-domestic customers should be able to readily share information from their meters with authorised third parties, and suggest that agreed and open standards for this information exchange will enable competition and benefit consumers.

We provide more comment in our responses to the “Non-Domestic Sector” document.

### 2.1.2 CHAPTER 3 - Industry Roles & Responsibilities

**Question 6\*:** Do you have any comments on the functional requirements for the smart metering system we have set out in the Functional Requirements Catalogue?

We are supportive of the requirements set out and are particularly pleased to see that the views of network operators regarding smart grid have been taken into account.

Whilst agreeing that “last gasp” communications would be very useful we wonder whether it can be provided without the need for additional battery or capacitor and would be interested to study in more detail the cost-benefit analysis for this requirement.

**Question 7\*:** Do you see any issues with the proposed approach to developing technical specifications for the smart metering system?

We support the approach described.

**Question 8:** Do you have any comments on the proposals that energy suppliers should be responsible for purchasing, installing and, where appropriate, maintaining all customer premises equipment?

ElectraLink agree that energy suppliers should be responsible for installing and, where appropriate, maintaining all customer premises equipment. In terms of purchasing, we feel that the ownership model of the WAN modules should mirror current arrangements for meter asset provision, with the DCC adopting the role of the asset provider. We are mindful that although this may reduce complexity around passing WAN module ownership during a change of supply, there are scenarios around shared use of the WAN module that still needs to be understood.

We would emphasise the importance of effective working between the DCC and suppliers in the establishment of a clear strategy for the provisioning of the WAN communications module.

Agreement and adoption of standards will be essential to ensure that the interface between the DCC and WAN communications module meets requirements of function and security. Open standards and the associated scrutiny that comes from openness have been shown to deliver solutions that are interoperable and cost-effective.

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

We continue to be fully supportive of an evolutionary approach whereby the minimum set of functions are implemented first, but without prejudice to future developments aimed at maximising benefits realisation.

We agree that there would be benefits in the DCC taking on (or at least having a view of) meter registration, but would also want to highlight the importance to electricity network operators' businesses that meter registration plays. Current MPAS systems master the data used for DUoS billing and thus there is a view that network operators should maintain control of the data and functions around registration. Never-the-less, improvements to the registration process and systems could be designed so that network operators maintain the control they require, but also lead to benefit realisation in industry processes (e.g. more rapid and efficient customer switching).

Over time we see benefit in the DCC taking responsibility for data processing, however progressive enhancements such as this should of course each be subject to cost-benefit analysis. For this reason, the design of the DCC should be cost-neutral with regards to any future proofing.

Network operators are of course currently developing their thinking around low carbon networks and smart grids. Whilst suppliers have many years of experience of handling consumer data (albeit and relatively low volume compared to that which could be made available by smart metering), the storing and archiving of consumer related data (e.g. meter readings) is not a core competency for DNOs. We thus see considerable benefit in the DCC providing relevant data services to DNOs. Furthermore this could extend to the interim arrangements, with any interim provider potentially being able to cache meter reads and make these available to the relevant DNO. Initially DNOs may use this data to inform their planning processes, and analyse how these will be impacted by the availability of smart meter data. Given that the timing of any interim solution will coincide with at least part of the LCNF projects run under the current price control, it makes sense for interim arrangements to support those LCNF projects where this is cost-effective.

Please also see our response to Question 2 of the "Data Security and Privacy" document.

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

We are supportive of the approach; however it is important that the procuring body has in-depth knowledge, understanding and experience of procuring and operating industry strength communications and data services. Competitive procurement of communications and data services is a model that has been proven to work well in the past. For example, ElectraLink's procure and manage role saved the industry 40% on the cost of a 5-year contract when the Data Transfer Network was re-procured through an open and transparent OJEU procurement process.



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

We can see the benefit in awarding the licence through a competitive process. Careful consideration must be given to the licence, including its duration, in order that the competitive process leads to the best value solution. Too short a licence period for example is likely to deter bidders, increase risk premium (the risk being that any investment made by the successful applicant is lost at the end of the first licence period) and limit opportunities for enduring innovations to be realised.

We broadly agree with the DCC governance arrangements as described in paragraphs 3.26 through 3.32. In particular, an appropriate incentive regime can promote cost efficiency, as has been evidenced by ElectraLink's re-procurement of the Data Transfer Service.

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

Clearly interoperability will be an issue, and allowing suppliers to run separate processes and systems for some customers would appear to increase complexity of the overall solution. We have touched on this in our response to "Non-domestic sector", but this is an issue that will need to be addressed by the programme in order that customer choice is not restricted, and smart grid benefits delivered. An open and transparent charging structure which does not include any commercial, technical or economic barriers to entry, such as those in the Data Transfer Service should alleviate any such concerns of suppliers to smaller non-domestic customers.

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

Yes. A formal, open and transparent governance structure is critical to the success of this programme. The code will need to be robust yet flexible enough to allow it to adapt to the changes as the smart world develops. ElectraLink supports drawing on the best practice elements of the existing industry codes while ensuring that the key principles developed within the Review of Code Governance are adopted where possible.

As code administrator to the SPAA and DCUSA, ElectraLink has observed that open and transparent governance is both effective and economic.

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

We welcome the prospectus outlining how smart metering will facilitate the development of smart grid, and note that close cooperation between the smart metering programme and smart grid programmes will lead to improved coordination and outcomes.

The proposals included in the prospectus for the DCC can also we believe be extended into the pre-DCC interim arrangements, as discussed in our response above to Question 9.



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

We are supportive of the approach and provide further comments in our response to “Data Privacy and Security”. Overall we cannot emphasise too highly the importance of designing security into all aspects (not just the technology) of the programme.

The security policy operated by the DCC should include the employment of a method to routinely refresh certificates and replace keys used for the encryption of data, thereby providing a much greater degree of protection to the security of energy supplies and sensitive consumer data. The Data Transfer Service provided by ElectraLink secures data transfers in this way and has experienced zero security incidents.

**Question 16\*:** Do you have any comments on the proposals for requiring suppliers to deliver the rollout of smart meters (including the use of targets and potential future obligations on local coordination)?

We are supportive of measures to deliver the rollout of smart meters in a way that maximises benefit realisation.

### 2.1.3 CHAPTER 4 - Implementation and Next Steps

**Question 17\*:** Do you have any comments on our implementation strategy? In particular, do you have any comments on the staged approach, with rollout starting before DCC services are available?

We are supportive of a staged approach. Clearly the rollout of meters prior to DCC services being available represents both a risk (interoperability and ability to support customer switching) and opportunity (bringing forward benefit realisation) for the programme.

We recognise that for the interim period there are a number of models which could be adopted to support the change of supplier process. These range from do nothing (i.e. allow a smart meter to become non-smart on change of supplier), to a market wide interoperability solution that enables seamless change of supplier, with the new supplier gaining access to the old suppliers smart meter. The facts are:

- Significant rollout of smart meters prior to the DCC can only be achieved if interim arrangements are put in place to minimise the risk of supplier asset stranding and non-economic IT investment;
- Interim arrangements are required to maximise the consumer experience on change of supplier – doing nothing is not an option; and
- By building on existing infrastructure, interim arrangements can be delivered quickly and cost-effectively, and in a way that enables suppliers to receive data flows in formats compatible with their existing systems.

Working with the industry, ElectraLink is supportive of pragmatic arrangements which enable customer switching but without introducing unnecessary investment or complexity. Such arrangements could be termed “pre-DCC interim interoperability”.

**Question 18\*:** Do you have any other suggestions on how the rollout could be brought forward? If so, do you have any evidence on how such measures would impact on the time, cost and risk associated with the programme?

Robust interim interoperability arrangements must be established. These arrangements can provide the minimum scope of DCC services i.e.

- Significant rollout
- Secure Communications and Access Control to gas and electricity meters;
- Translation Services (encompassing a limited number of head ends); and
- Scheduled data retrieval.

Potentially they can also fulfil initial smart grid requirements (by routing of data to network operators).

This service can be built as an incremental enhancement to existing industry services and offers a pragmatic route to bringing forward the rollout. The scope of any pre-DCC arrangements will need to be less than those offered by the DCC, in order that they may be delivered in a useful timescale. For example, it is likely that only a subset of meters, head-ends and other requirements would be met. By enabling interoperability however, suppliers should become more confident that smart meters installed prior to the DCC will stay smart following a change of supply event, thus maintaining asset value and customer experience.

Meters installed to the pre-DCC arrangements would need to be migrated into the DCC at some point in the future. This could potentially be achieved by novation of contracts into the DCC. Similarly, smart meters that have already been installed could be migrated into the pre-DCC arrangements by suppliers novating their communications contracts to the provider of pre-DCC arrangements. Such a route offers a transition plan for early adopters into the DCC when it is available. ElectraLink is keen to continue working with all industry participants to support the interoperability requirements of the industry.

Agreement of the meter technical specification is clearly on the critical path, but as stated below we do not feel the timescales for agreement of the specification under-ambitious. It will be helpful if the meter approval process is ready to go as soon as the specification is agreed.

**Question 19\*:** The proposed timeline set out for agreement of the technical specifications is very dependent on industry expertise. Do you think that the technical specifications can be agreed more quickly than the plan currently assumes and, if so, how?

We do not feel the proposed plan is under-ambitious. An early decision on the HAN will probably assist with overall agreement of the specification.

**Question 20\*:** Do you have any comments on our proposed governance and management principles or on how they can best be delivered in the context of this programme?

We are supportive of the principles outlined. The programme will need to adopt a robust approach in order to meet the desired timescales.

## 2.2 Statement of Design Requirements

### 2.2.1 CHAPTER 3 - Overview of the Smart Metering System Functional Requirements Catalogue

**Question 3:** How can the costs of switching between different mobile networks be minimised particularly in relation to the use of SIM cards and avoiding the need change out SIMs?

The question is asked in the context of Change of Supply. The situation envisaged appears to be that as part of initial staged implementation (i.e. pre-DCC) suppliers A and B have procured WAN services from cellular providers X and Y respectively. When a customer changes supplier from A to B, the implication is that supplier B must either swap in a SIM, or procure services from cellular provider X.

There are a number of ways to address this problem, and we note that the prospectus itself (page 3 of Communications Business Model) provides one answer i.e. that communications contracts could be capable of being novated into the DCC once it commences services. In this case, the DCC maintains contracts with multiple WAN providers (including X and Y). This enables Change of Supply to occur without the need to change SIMs. It enables the DCC to maintain a degree of competition between cellular providers; although the cost of physically changing SIMs would still be a barrier to competition across the entire portfolio.

Technical solutions also exist, including possibly the use of a roaming SIM or virtual network operator. Beyond Change of Supplier, these technical solutions can potentially support competition in communications, for example if a new service provider enters the market. We would look to cellular network infrastructure organisations to provide innovative solutions in this area.

**Question 4:** Do you believe that the Catalogue is complete and at the required level of detail to develop the technical specification?

The Catalogue appears to be sufficiently complete and detailed.

### 2.2.2 CHAPTER 5 - Achieving Technical Interoperability

**Question 7:** Do you agree that the proposed approach to developing technical specifications will deliver the necessary technical certainty and interoperability?

Broadly yes. We agree that Option 2 should be taken forward as the industry as a whole is best placed to prepare detailed technical specifications. As stated in the prospectus, this is accepted as the preferable approach by most industry participants.

Paragraph 5.20 states the importance of all suppliers being involved in the process. We suggest that network operators should also all have the opportunity to be involved in the process. Work commissioned by the Energy Networks Association has informed development of the prospectus, especially in terms of smart grid requirements. Continuing this network operator involvement will ensure that smart grid requirements are fed through into appropriate technical specifications.

We note in Paragraph 5.21 the proposal to establish a Smart Metering Design Group (SMDG). It is not explicitly stated in Chapter 5, although touched on elsewhere in the document and other supporting documents, but the WAN and DCC also play an important role in achieving technical interoperability. We believe therefore that the Data and Communications Group (DCG) can also play a vital role in establishing the technical specifications for interoperability. Their input may cover, for example, further options regarding Question 3 above.

**Question 10:** Are there steps that could be taken which would enable the functional requirements and technical specifications to be agreed more quickly than the plan currently assumes?

The timescales of six to nine months indicated in paragraph 5.19 are not un-ambitious. As noted above, we think that some of the questions around technical interoperability could be addressed by the DCG as well as SMDG.

As an organisation owned by DNOs, and working on behalf of the industry, ElectraLink is keen to continue working with the industry to support delivery of the programme's objectives.

## 2.3 Roll Out Strategy

### 2.3.1 CHAPTER 2 - Approaches for Rollout

**Question 1:** Do you believe that the proposed approach provides the right balance between supplier certainty and flexibility to ensure the successful rollout of smart meters? If not, how should this balance be addressed?

Given the context of a supplier led rollout we think the proposed approach of a market-led implementation is likely to be efficient. Suppliers best understand consumers, and so are best placed to identify the right customers first, and lead consumer adoption. The proposed approach gives suppliers the flexibility to optimise their rollout plans, balancing costs and benefits.

We agree that enabling suppliers to respond to customer “pull” should assist in delivering benefit realisation. Paragraph 4.13 discusses the risk that suppliers choose rollout profiles that may be non-optimal for the programme as a whole; an advantage of the market-led rollout model is that in the event a supplier chooses such a rollout profile then consumers are able to switch supplier to one which is prepared to deliver smart metering more rapidly.

**Question 2:** Would the same approach be appropriate for the non-domestic sector as for the domestic sector?

This seems reasonable.

**Question 3:** Is there a case for special arrangements for smaller suppliers?

Some smaller suppliers have been active in delivering smart metering to their customers. This is an example of where the market can drive accelerated rollout of meters.

It is critical that there are no barriers to entry, be they economic or technical which would impact the entry of smaller suppliers into the market. Interoperability is key in this regard, providing equal access to smart metering services for small and large suppliers. Interim interoperability arrangements must also be at a cost that is affordable for smaller suppliers to participate.

### 2.3.2 CHAPTER 4 - Obligations on Suppliers to Complete the Rollout

**Question 6:** Do you agree with the proposed obligation on suppliers to take all reasonable steps to install smart meters for their customers? How should a completed installation be defined?

It seems sensible to define a completed installation from the customer’s perspective, as indicated in paragraph 4.10.

**Question 7:** Do you think that there is a need for interim targets and, if so, at what frequency should they be set?

In our response to Question 11 we have highlighted some ways in which the DCC could support measurement of progress against targets.

### 2.3.3 CHAPTER 6 - Reporting Arrangements

**Question 11:** Do you agree with our proposed approach to requiring suppliers to report on progress with the smart meter rollout? What information should suppliers be obliged to report and how frequently?

As a principle we agree that transparency around the rollout is essential. We note that the DCC (or pre-DCC the provider of any interim services) would potentially be able to provide certain data on a near real-time basis:

- Number and type of smart meters installed;
- Geographical location of installed smart meters;
- Supplier registered at the meter point at the time the smart meter was installed;
- Numbers of smart meters registered to each supplier (this information will presumably be held by the DCC / pre-DCC in order to maintain access control);
- Credit / pre-payment status of installed smart meters;

Some of these metrics could possibly be broken down by, for example, agent or work team, enabling identification of best practice or issues affecting quality or speed of deployment.

Having this information provided centrally on a near-time basis will assist in accelerating the rollout and demonstrating progress against the business case.

## 2.4 Implementation Strategy

### 2.4.1 CHAPTER 2 - Programme management and governance

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

We note that the outputs of the Expert Groups will be published on the Ofgem website. The same benefits of transparency and comment will also we believe apply to the outputs/minutes of the Implementation Co-ordination Group, and we see merit in making these available on the Ofgem website – in addition to the terms of reference as indicated in Paragraph 2.13.

Please also refer to our response to Question 7 in the Statement of Design Requirements, where we indicate that the subject of technical interoperability should be addressed by the DCG as well as SMDG. Possibly a joint sub-group of the two expert groups could be convened to address technical interoperability.

### 2.4.2 CHAPTER 3 - Programme activities

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

As the programme progresses it is likely that potential changes to the programme will be identified. These may be the result of business case review, risk management, or controls around scope, quality, time, cost etc... Change control is referenced later in paragraph 5.18 but it may be worth making change management (that is, management of change to the programme itself) an explicit cross-cutting activity.

### 2.4.3 CHAPTER 5 - Implementation plan for regulatory framework changes

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

Yes. Furthermore we recognise the ambition to accelerate implementation and suggest opportunities for doing this in our response to Question 5.

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

The prospectus identifies interoperability as a risk. Interoperability is partly a function of the meter, and partly of the DCC. Interoperability risk can be mitigated by ensuring that the meter specification includes standards for communicating with the meter (including data privacy and security). This will enable the DCC (or pre-DCC interim arrangements) to access relevant functions and data on the meter and provide market interoperability (for example ensuring that access to the meter is restricted to current registered supplier).

The establishment of pre-DCC interim arrangements will thus help in accelerating the rollout and bringing forward benefits. As a first step, clarity on the regulatory situation, and industry requirement for such a service, is required.



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

ElectraLink believe that establishment now of pre-DCC interim interoperability will enable the rollout and benefits to be brought forward. Enabling interoperability prior to the DCC can assist in accelerating the rollout by:

- Eliminating stranding risk for technically compliant meters rolled out under supplier obligations prior to establishment of DCC; and
- Potentially reducing stranding risk for meters rolled out prior to agreement of technical specification.

Over the last two years ElectraLink has investigated how existing industry systems can support the rollout of smart metering. Our conclusion is that there are opportunities to build on existing, robust, tried and tested platforms such as the Data Transfer Service (and others). ElectraLink is ready to work with industry participants and stakeholders at the appropriate time. We believe a procure and manage model under existing industry practices can deliver effective interim interoperability arrangements.

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

This seems reasonable on the assumption that the requirements on suppliers are clear at the time the licence obligations become live. However we note that the commercial rollout of smart meters has already started and is likely to continue in advance of supply licence obligations taking effect.

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

#### Response to high level assumptions

##### **Ramp-up period**

We agree a ramp-up period is likely before suppliers are able to reach peak capability for rolling out smart meters.

##### **Testing and piloting**

There is an opportunity to accelerate this activity by using a pre-DCC interim service that ensures interoperability. A service of this nature will allow industry to test and pilot smart meters and their own back office systems and processes, as well as deploy smart meters at volume before DCC go-live. Assuming that some sort of pre-DCC service is in place at the time of DCC go-live then a migration from one service to the other will need to take place.

##### **EU Standards**

No comment on this assumption.

##### **Framework changes**

We agree that changes can be progressed in parallel and encourage any opportunity to bring timescales forward.

#### Response to regulatory framework activities

We have discussed some of the issues around developing the Smart Energy Code in our response to Question 4 of the "Regulatory and Commercial Framework" section. As code administrator to the DCUSA and the SPAA, ElectraLink will be pleased to provide expertise to the programme as it develops the smart metering regulatory framework.

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

The outputs appear to be well thought through and relevant.

## 2.5 Communications Business Model

### 2.5.1 CHAPTER 2 - The Scope of DCC

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

Yes.

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

We agree that there would be benefits in the DCC taking on (or at least having a view of) meter registration, but would also want to highlight the importance to electricity network operators' businesses that meter registration plays. Current MPAS systems master the data used for DUoS billing and thus there is a view that network operators should maintain control of the data and functions around registration. Never-the-less, improvements to the registration process and systems could be designed so that network operators maintain the control they require, but also lead to benefit realisation in industry processes (e.g. more rapid and efficient customer switching).

In the short term solutions could be implemented that will enable the DCC (or pre-DCC interim arrangements) to determine the registration status of a meter without the need to centralise all meter registration functions.

In the medium to longer term we support the proposed further analysis of the costs and benefits of including meter registration in DCC scope. Benefits may include:

- Alignment of electricity and gas registration;
- Streamlined change of supply;
- Improved data quality;
- The value (more effective reporting, analytics, rationalisation and efficiency of IT) gained from having registration data held in a single logical database.

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

We are supportive of, and indeed have consistently argued for, an evolutionary approach whereby the minimum set of functions are implemented first, without prejudice to future developments which enhance benefits realisation.

We see there may be benefit in the DCC taking responsibility for data processing and data aggregation at some point in the future; however evolutionary additions such as this should of course each be subject to cost-benefit analysis. Both data processing and data aggregations are functions which may change as a result of smart metering; data processing may change to include validation, estimation and editing of time of use data (rather than register readings) and data aggregation would change if settlement moved to half hourly in the domestic market. It is likely therefore that there will be a natural time to consider the cost benefit case for centralising these functions (DCC versus cost of system changes for DCs and DAs). For the time being, the design of the DCC should aim to be cost-neutral with respect to future changes.

Crucially, the DCC is also well placed to provide services to network operators. Meter data (e.g. four-quadrant values) can be routed to the DNO independently of the supplier, enabling continuity of service to the DNO through change of supplier events.

Please also see our response to Question 2 of "Data Privacy and Security".

**Question 4:** Do any measures need to be put in place to facilitate rollout in the period before DCC service availability and the transition to provision of services by DCC, for example requiring DCC to take on communications contracts meeting certain pre-defined criteria?

Yes. We see interoperability as key in the interim period before DCC service availability. Rollout prior to the DCC offers the possibility of bringing forward benefits realisation. Care must be taken that these benefits are not jeopardised by stranded asset costs or loss of consumer confidence that could result from failure to ensure interoperability.

An interim interoperability service can minimise these risks and facilitate rollout before DCC service availability. Requiring the DCC to take on communications contracts is one way of transitioning service provision from either suppliers or the interim service provider to the DCC. Alternatively, the interim interoperability service could continue to operate (in parallel with the DCC) until the end of those communications contracts.

### 2.5.2 CHAPTER 3 - The Structure and Realisation of DCC

**Question 5:** Do you agree that the licensable activity for DCC should cover procurement and management of contracts for the provision of central services for the communication and management of smart metering data?

Yes.

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

We note that currently a number of central industry bodies are owned by their users, and we do not see that complete independence of the DCC from suppliers or other users is necessarily required. Rather, transparency and strong governance can ensure that the DCC acts in accordance with its licence obligations and in the best interests of the industry as a whole. In fact, rather than being independent from its users, there may be benefits in the DCC being owned by its users.

We understand the need for the DCC to be independent of its service providers. However, we would caution against being too dogmatic in this regard, instead proposing the approach of transparency and strong governance. As technology and markets develop it is difficult to predict which entities may or may not wish to bid services to the DCC. Depending on the ownership model adopted, some technologies may inadvertently be ruled out. For example:

- DNO ownership could prevent any use of power line carrier;
- Supplier ownership could restrict energy retailers who wish to develop telecoms businesses.

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

The best way to achieve the proposed timescales is to clearly define the scope of service prior to licensing the DCC, and robustly managing delivery of the service this scope.

ElectraLink delivers the Data Transfer Service under a “procure and manage” model. The steps outlined in paragraph 3.27 reflect good practice; we would highlight however that in order to meet the proposed timescales the DCC must be able to hit the ground running i.e. have the skills and experience necessary to start licensed procurement immediately the DCC licence is awarded.

The idea (paragraph 3.28) of DCC applicants bringing a portfolio of potential service providers to the final bid stage is interesting and could help to accelerate timescales; however care must be taken to avoid the possibility, or perception, that this could distort the competitive procurement process which the DCC would run under licence.

Our experience with the Data Transfer Service is that the procure and manage model does indeed lead to cost-effective provision of services. For example, re-procurement of the DTS by ElectraLink brought in 40% savings (over a 5 year contract) on behalf of the industry. We anticipate given the scope of services under DCC management (data volume, number of end points etc...), skilful re-procurement can promote competition that brings both innovation and significant cost savings.

With regard to timescales, expertise developed prior to licence award will help the DCC to meet aggressive timescales. Over the last two years ElectraLink has engaged with parties across the utilities, technology and telecommunication sectors to develop understanding and expertise in smart metering. The breadth of our investigation covers international deployments of smart metering and smart grid, detailed analysis of GB supplier and network operator use-cases, and study of communication infrastructures and data management software. We believe this type of preparation for procurement must be undertaken by any successful bidder for the DCC licence, in order that intelligent procurement of contract packages can start as early as possible after licence award.

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

We agree that the DCC’s charges need to be cost reflective, and that common practice today includes elements of activation, standing, volume and general charges. Given that the DCC is anticipated to competitively procure services and that innovation in communications technology may be one method by which the DCC may reduce costs, the DCC’s charging model must be flexible enough to respond to different cost models that service providers may offer.

## 2.6 Regulatory and Commercial Framework

### 2.6.1 CHAPTER 2 - Smart Metering Regulatory Regime

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

As energy suppliers will be required to comply with the code and this obligation is expected to be maintained through a new license condition, ElectraLink agrees with the key elements defined.

### 2.6.2 CHAPTER 3 - Smart Energy Code

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

ElectraLink supports the proposal to establish a Smart Energy Code and understands the need to facilitate and govern the relationship between licence holders and, particularly, users of communication and data services, the DCC and its service providers with an industry code common to both electricity and gas.

We see significant benefits in creating a joint electricity and gas code; cost reductions and process harmonisation should lead to benefits for industry participants and consumers. Defacto, most energy suppliers are dual fuel. Barriers to entry should also be reduced for new market entrants.

As well as developing new processes for smart metering, the creation of the new code will provide an ideal opportunity to review and update existing processes, with best practice from across the gas and electricity industries being shared and promulgated. The code should enable these potential improvements to be made, subject of course to impact analysis. When introducing new processes care must be taken not to introduce unnecessarily complex changes.

For the code to be effective all parties must be mandated to comply with it; if some parties or roles are allowed to operate outside of the code then benefits will be diluted.

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

We are supportive of the Smart Energy Code scope as laid out in the indicative table of contents and anticipate that further areas may be identified following the review of existing processes.

Based on our direct experience in developing and managing industry codes, ElectraLink has identified that the following additional areas should be considered:

- Creation of 'SmartCo Ltd' (see our response to Question 4);
- Funding arrangements for SmartCo Ltd and its supporting activities; and
- Scope of SmartCo Ltd and its relationship with the Smart Energy Code Administrator.

In addition, there may be a requirement to include transition arrangements from existing codes for a defined period of time.

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

ElectraLink fully supports the key principles of good governance identified outlined within the prospectus. We would highlight that the governance arrangements, including the services delivered to support the governance, must be representative of the scale and scope of the processes to be governed. A set of robust governance arrangements will be critical to the success of ensuring that changes to the processes and procedures to enable supplier-to-supplier inter-operability within the industry works efficiently. Our experience in establishing codes has shown that open, transparent and inclusive development at the outset subsequently delivers efficient and economic governance arrangements.

We suggest that information gathered from Ofgem’s recent Code Governance Review should be used to shape the primary framework for the arrangements. In particular the concepts of ‘Significant Code Reviews’ and ‘Self Governance’ should be adopted as they fully represent the latest thinking in efficient and effective code management. The Smart Energy Code Administrator should be compliant with the Code Administration Code of Practice and provide the role of a ‘critical friend’ to industry with its service being measured against robust service levels and KPIs.

Smart Energy Code Corporate Governance

Based on our direct experience in developing and administering Industry Codes in Gas and Electricity markets, we recommend the creation of SmartCo Ltd – a legal entity responsible, inter alia, for arranging and ongoing oversight of the management of the Smart Energy Code. We envisage delivery of Smart Energy Code development and management would be a separate entity subordinate to SmartCo Ltd.

Representatives from all Parties to the Agreement<sup>1</sup> would be nominated to sit on the Executive Panel and / or Board of SmartCo Ltd. SmartCo Ltd would be a ‘shell entity’ dedicated to the effective delivery and governance of the Smart Energy Code. The operational and administrative matters would be contracted out to the Smart Energy Code Administrator who would contract directly with SmartCo Ltd. SmartCo Ltd would require only modest longer term administrative support (although some additional support would be required during its initial phase) with the Code Administrator delivering the bulk of the services.

This model operates efficiently in the gas and electricity market, however we feel it could be further enhanced and improved with the appointment of an independent Chair who is not affiliated with either Parties to the Code or any service providers. The appointment of such a Chair (and non executive directors) to SmartCo Ltd would comply with good corporate governance and demonstrate independence between SmartCo Ltd and its service providers.

In addition to ensuring good governance, we consider the creation of SmartCo Ltd the most effective way of ensuring that those requirements are delivered by service providers in compliance with the Code. It is essential that licence holders have the power to manage the development of the code through self governance, direct ownership and sound control. In addition Ofgem would have oversight of the management of the Code through the licence obligation on licensees and with a direct involvement in the change process - be it through licence amendments, significant code reviews or determining on modifications. This view reflects our experience of current successful governance models developed with the industry in partnership with ElectraLink for SPAA Ltd and DCUSA Ltd.

ElectraLink envisage that the Parties to the Smart Energy Code will be entitled to take up a share in SmartCo Ltd and that representatives from those Parties will form the Executive and Board of the company. The Directors of SmartCo Ltd, as funding parties, would then be incentivised to keep the costs of managing the arrangements to a minimum and be

<sup>1</sup> With the possible exception of the DCC



responsible directly to Ofgem. This model would “round the circle” in terms of linkage between good corporate governance and good code governance.

#### Smart Energy Code Contracting Model

The creation of SmartCo Ltd will provide a corporate ‘home’ for the Smart Energy Code and form the contractual basis for service providers to the Code, such as a code administration, website provision and professional advisors (auditors, insurance etc). It would manage those service providers through contract management and service level agreements and manage the budget and funding arrangement for the Code. This would of course need to be undertaken with the required level of transparency regarding the costs of the Code and the associated services.

#### Procurement Process

It is essential that the procurement of the service providers appointed to deliver the DCC and the Smart Energy Code Administration must be open and transparent. A separate exercise must be run for both activities and organisations appointed on their ability to meet the range of commercial, functional and legal requirements.

In order to ensure the process remains competitive, candidate organisations should not be precluded from bidding for multiple roles. An open and transparent procurement, followed by a similar open and transparent contract and service delivery framework, will allow for regulatory and corporate governance oversight to ensure no conflicts of interest, real or perceived exist. The focus of each procurement should be the evaluation of each organisation’s capability to undertake the specific role being procured. The roll out of smart allows industry a unique opportunity to aspire to secure premium services for the component parts and to create a framework to facilitate such an aspiration without.

Any ongoing developments within the code to deliver systems required to support the arrangements must then be open to full and transparent procurement. This will be most easily delivered through the procedures established within the DCC and we do not foresee a need to develop a substantial ‘procurement’ body within SmartCo Ltd beyond that for the ‘DCC’ and Code Administrator – component procurement as any such requirements would be delivered by the subordinate DCC.

#### Scope

ElectraLink supports the outlined scope of the DCC and the remit of the Smart Energy Code as detailed in the Prospectus; the Smart Energy Code setting out and governing the industry processes with the DCC determining how those requirements are best delivered. Whilst the scope may be developed over the coming months, it is important that these clear ideological principles are not diluted as both functions have distinct and important roles which should be preserved and delivered using distinct specialist service providers.

We envisage the following would be included in SmartCo Ltd scope, of which a number would be delivered via the Smart Energy Code Administrator:

- Meeting Administration;
- Change Management;
- Finance – funding and budgets;
- Company Secretariat;
- Website Administration;
- Party Membership Management;
- Managing the Licence holders relationships with DCC;
- Arranging expert independent technical and commercial evaluations where appropriate; and

- Facilitating reporting to licence holders and regulatory authorities on progress with relevant aspects of Smart rollout developments.

Excluded from its scope would be the monitoring, management, auditing, or assurance provision services in relation to the operation of the DCC.

The scope of the Smart Energy Code Administrator should be broadly defined in the Smart Energy Code with the detail being set out in a commercial contract.

#### Interaction with the DCC

As set out above, ElectraLink firmly believes that the procurement for the Smart Energy Code Administrator must be carried out in an open and transparent manner. We believe that the services for both the DCC and Smart Energy Code Administrator should be awarded solely on merit to the company most capable of delivering that service.

However, we also identify that, with proper governance and separate contracting frameworks reflecting the relevant requirements, it may be possible for the same company to deliver both services and that this may deliver further benefits and efficiencies to the industry including:

- Tap into skilled and specialist resources with opposite body;
- Knowledge sharing and transfer;
- No gaps (real or perceived) in service delivery;
- DCC can be used as procurement agent for component services under SmartCo Ltd;
- Principles applied to DCC will be rolled out to the Smart Energy Code Administrator; and
- Enhanced change management process – defined in Code, delivered by DCC.

### **2.6.3 CHAPTER 4 - Roles and responsibilities at customer premises**

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

While we agree that energy suppliers should be responsible for the installation and maintenance of the WAN module, ElectraLink suggest that the provisioning of WAN communications modules should lie within the remit of the DCC, as part of their responsibility to procure national WAN services. This position would provide a more robust end-to-end national WAN strategy, and realise significant economies of scale when undertaking the hardware procurement.

The establishment of clear open standards upfront would be a prerequisite to ensure the vital WAN module interoperability with IHDs as described in our response to Q1 of Chapter 2 - The Consumer Experience.

## 2.6.4 CHAPTER 5 - Other regulatory and commercial issues

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

Yes. In our responses to “Implementation Strategy” we have outlined how pre-DCC interim interoperability arrangements can help facilitate rollout by early movers, protecting assets and consumer confidence by enabling smart meters to stay smart following a change of supply event. Whilst perhaps presenting some challenges, early movers can assist in more rapid delivery of the overall programme. They also offer an opportunity for early validation of benefits realisation and testing of assumptions, both of which will be useful feedback for the programme. The sooner interim arrangements are put in place the easier it will be.

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

Integration with existing codes and transparent requirements that limit the impact on established business systems will help ensure commercial interoperability. In the interim this will mean encouraging cooperation between market participants and joint support/commissioning of interim services that facilitate the deployment of Smart Metering within the existing interoperability structures.

**Question 10:** Can current arrangements for delivering technical assurance be developed to gain cost effective technical assurance for the smart metering system? If so, how would these procedures be developed and governed?

We welcome the importance attached to maintaining public confidence by ensuring accuracy of metrology. We also note issues that have occurred in the USA where it appears that the accurate metrology of smart meters has led to significant increases in some consumer bills where consumers were previously being metered too low.

Beside metrology, the DCC (and potentially pre-DCC interim arrangements) can play a useful role in technical assurance by collecting, analysing and reporting on alerts, errors and failure modes reported by meters. This could give close to real-time feedback on emerging issues (e.g. meters from a particular batch exhibiting an unusually high failure rate) which will be of value during and after rollout.

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

We are aware that private networks are a subject of current debate. It may be worth considering whether the programme is able to facilitate solutions for the private network issue.

## 2.6.5 CHAPTER 6 - Impact on wider industry processes

**Question 12:** What evolution do you expect in the development of innovative time-of-use tariffs? Are there any barriers to their introduction that need to be addressed?

We consider that the programme should ultimately enable a greater range of Time of Use and Feed-in tariffs at each subsequent stage of the programme and in order to achieve this, energy retailers and network operators will need to be provided access to increasingly granular energy consumption and export measurements at individual customer/metering point level.

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

ElectraLink’s view is that centralised aggregation of Time of Use data will be possible at the DCC systems to enable efficiencies in areas such as data provision for settling energy generation costs.

At the outset the programme could consider the extent to which the complexity and cost of the early stages of the programme can be de-risked by reducing the demands placed on participant and central systems from complex tariffs and incentives that rely on the collection, storage and processing of the most granular data. We suggest that the impact of increasingly complex tariffs and incentives on the volume of data collected stored and processed could be modelled to inform the programme of options to optimise the cost/benefit case for the data provisioning infrastructure.

We can also see that it may be possible to efficiently aggregate outbound messaging and command data to metering systems for the purpose of low voltage network optimisation where blanket incentives can be employed to influence demand or export at distribution feeder level.

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

Presumably independent network operators will need to be party to all the same licence conditions as network operators in so far as these facilitate smart metering.

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

Under the governance of the DCUSA, DNOs and IDNOs have been discussing how use of system charges for “nested networks” may be billed. Current system limitations around the line loss factor class id have precluded some options from being considered. It may be worth the programme considering the impact of changes to DNO/IDNO billing.

There are likely to be impacts on existing data flows in the gas and electricity markets, and we look forward to working with the DCC and provider of interim arrangements to facilitate these changes.

## 2.7 Non-Domestic Sector

### 2.7.1 CHAPTER 4 - Use of DCC to communicate with meters in the smaller non-domestic sector

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

Yes, assuming that the charging model for non-domestic customers is cost reflective in the same way as for domestic customers.

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

We are supportive of the programme's recognition that network operators will have a need to access data, including for smart grid purposes. As stated in paragraph 4.20 non-domestic customers can constitute significant loads, and are thus important in both the planning and active management contexts. Indeed there is activity underway for non-domestic customers around demand response etc.

A further point for consideration is whether network operators will in the future roll out communications infrastructure specifically to support smart grid requirements (i.e. in addition to smart grid data that can be got from smart metering). Extensions to existing SCADA or new systems may be considered as part of LCNF projects or longer term, and these may overlap with or duplicate WAN functions provided by the DCC. In this case two factors to consider are the extent to which this may increase overall cost and/or the ability of network operators to bid any such comms infrastructure as service provider into the DCC.

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

ElectraLink is code administrator for the DCUSA. We make the following observations:

- In general the industry has moved away from bilateral agreements to multi-party agreements (e.g. DCUSA & SPAA), recognising that these bring efficiency and effective governance;
- DCUSA DCP 018 'Clarification on the Provision of Metering Data' sought to clarify which data would be provided to network operators free of charge by suppliers, and to allow suppliers to charge for bespoke data requests beyond this. The second part of this proposal was strongly rejected. Clarity was added to the DCUSA around the then current arrangements. We do not offer a view on whether clause 29.3 of the DCUSA is adequate to capture all smart grid data (type and granularity) that may be required, but suggest that this is an issue which could be considered by a working group; and
- Given that suppliers have a licence obligation to comply with the requirements of the DCUSA we think a sensible course would be to ensure that the DCUSA does adequately capture all requirements, rather than trying to capture these as separate supplier licence obligations.

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

By not mandating the use of the DCC, suppliers may need to run separate processes and systems for some customers, and in effect increase complexity of the overall solution. An open and transparent charging structure which does not include any commercial, technical or economic barriers to entry, such as those in the Data Transfer Service should alleviate any such concerns of suppliers to smaller non-domestic customers.

**2.7.2 CHAPTER 5 - Other issues related to non-domestic customers****Question 9:** What steps are needed to ensure that customers can access their data, and should the level of data provision and the means through which it is provided to individual customers or premises be a matter for contract between the customer and the supplier or should minimum requirements be put in place?

We do not offer an opinion on whether this is a matter for commercial negotiation between customer and supplier or a question for regulation, but observe that in the former suppliers have the option to compete by making available the data their customers want.

Following the principle (paragraph 5.13) that non-domestic customers should be able to choose how their consumption data is used and by whom, except where data is required to fulfil regulated duties, will be the first step in ensuring that customers can access their data appropriately.

Secondly, we would argue that whether data is handled by the DCC or via other arrangements, greater efficiency and increased competition will be facilitated by the use of common standards, protocols and interface formats. For example, the ability to provide data in an open format will enable the customer more easily to choose the organisation which should provide its energy efficiency advice.

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

Yes. Please see our responses to the data privacy and security questions.

## 2.8 Data Privacy and Security

### 2.8.1 CHAPTER 3 - Data Privacy

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

We agree that in developing proposals for the deployment of smart metering, a strong emphasis is placed on the need to ensure that the additional information smart meters will provide is appropriately controlled and that privacy and security are properly addressed.

Overall, ElectraLink is supportive of the approach described within the Prospectus most notably that any communication systems that support smart metering must be robust to ensure the potential for deliberate or unintentional interference is adequately addressed. Since its inception in 1998, ElectraLink's Data Transfer Service has ensured the integrity of industry data has never been compromised from an 'interference' perspective. We fully support the principle of consumer choice concerning the handling of consumption data for all but regulated duties and the proposed iterative approach to the Privacy Impact Assessment, which we believe is key to ensuring that the privacy design takes account of all aspects of the programme as it develops.

**Question 2:** We seek views from stakeholders on what level of data aggregation and frequency of access to smart metering data is necessary in order for industry to fulfil regulated duties.

#### Aggregation

Our view is that centralised aggregation of Time of Use data will be possible at the DCC systems to enable efficiencies in areas such as data provision for settling energy generation costs.

We consider that the programme should ultimately enable a greater range of time of use and feed in tariffs at each subsequent stage of the programme and in order to achieve this, energy retailers and network operators will need to be provided access to increasingly granular energy consumption and export measurements at individual customer/metering point level.

At the outset the programme could consider the extent to which the complexity and cost of the early stages of the programme can be de-risked by reducing the demands placed on participant and central systems from complex tariffs and incentives that rely on the collection, storage and processing of the most granular data. We suggest that the impact of increasingly complex tariffs and incentives on the volume of data collected stored and processed could be modelled to inform the programme of options to optimise the cost/benefit case for the data provisioning infrastructure.

We can also see that it may be possible to efficiently aggregate outbound messaging and command data to metering systems for the purpose of low voltage network optimisation where blanket incentives can be employed to influence demand or export at distribution feeder level.

#### Frequency

The question of optimum frequency for the retrieval of smart metering data may to a degree be determined to optimise the capabilities of the available communications infrastructure, relative to the population of meters to be read. On the other hand we see the provision of data from the DCC to participants, whilst clearly dependant on the retrieval of smart meter data, can potentially be de-coupled from AMI operations and synchronised with the common or individual needs of participant businesses in order to fulfil the required quality of service and avoid any unnecessary demands or impact on participant systems.



It should also be noted that different types of data may have different requirements, for example it may be useful to have access to some alert data in near-real time, whereas the access time requirement for aggregated consumption data will be much less critical.

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

ElectraLink is supportive of the approach described within the Prospectus. We consider that the proposed Privacy Charter is an essential component to address consumer confidence in preparation for rollout.

It is essential that the Smart Metering Implementation Programme provides an effective means for consumer engagement during the planning phase. We suggest that the development of the Privacy Charter is maintained to ensure alignment with the SMIP Regulatory and Commercial Framework, and the development of the subsequent Smart Energy Code, as it sets out scope, boundaries and responsibilities that also require consideration and treatment by the Privacy Charter.

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

Policy should be developed that provides clear guidance on the extent and nature of legitimate access to and use of consumption data and meter functions, in the course of the provision of licensed energy services. Beyond this licensed use of consumer's data, it is possible that the critical national infrastructure for smart energy data could provide efficient and standardised services to enable the effective administration of consumer data privacy permissions in respect of personal data relating to energy consumption. Centralised data management for smart energy could provide protection of consumer's data, and optional managed sharing with third party service providers in line with consumer's rights and wishes. Through such a service, consumers could exercise control with respect to determining the extent to which their energy usage data is shared beyond the provision of regulated energy services.

We also suggest that where necessary the privacy charter should provide consumers with assurances that the use of any 'offshore' systems in the collection, storage or processing of GB smart metering personal data will be GB DP compliant.

## 2.8.2 CHAPTER 4 - Smart Metering System Security

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

ElectraLink is supportive of the approach described within the Prospectus. We are particularly pleased to see the principle of 'security by design' included. We believe that this holistic approach will promote the development of an end to end system that is adequately and efficiently equipped to protect the interests of smart energy stakeholders.

With further regard to 'security by design' we are concerned that the scope of the Smart Metering System Functional Requirements Catalogue should be extended to take account of some requirements which will be determined by the Security Model. For example we expect that the metering system will be required to provide a number of functions supporting the end to end service to provide effective; discovery & identification, cryptography, authentication, non-repudiation, audit, prioritisation, fault tolerance and quality of service parameters; for smart metering data, consumer transactions and metering system commands.

Smart energy networks, will introduce a step increase in the volume and granularity of data produced, transmitted, stored and consumed. In addition to the increased privacy concerns,

the functional and non-functional requirements for centralised data storage need careful consideration. Requirements such as; availability and speed of data transfer service levels, resilience, fault identification, diagnosis & rectification, speed of access, methods to control access, and strength of encryption; are all key considerations that will combine to determine the reliability and capabilities of the smart energy infrastructure.