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Briefing Note	Key Issues for Consideration in Phase 1 of the DECC/Ofgem Smart Metering Implementation Programme
Version: 1	Engage Consulting SRSM Project Team

Introduction

This paper identifies the key issues the ERA and its members believe to be essential to consider and resolve within the Prospectus as the key output from Phase 1. Without resolution of these issues, there is a significant risk of delay to the start of installation of smart meters in households.

Key Issues

Supplier Involvement in Programme Decision-Making

Energy suppliers will be responsible for funding and installing smart meters and each of the individual organisations has large-scale internal development programmes that are fundamentally dependent on the work delivered within the DECC/Ofgem programme. Given the level of investment that each supplier will be undertaking, our responsibility for delivery and our relationship with customers, it is critical for Suppliers to be represented at the highest level of decision-making in the programme as soon as possible in Phase 1.

Programme Plan & Who Delivers the Work

There needs to be a clear plan for **all** elements required for the delivery of smart metering and clarity on the responsibility for delivery of each element.
These elements need to be fully analysed, including costs and benefits with the most appropriate options clearly set out in a project plan with delivery timescales. This needs to extend beyond design and into build, test and full deployment. At present, it is not clear when full industry go-live will be and this introduces significant risk and uncertainty. For example, it is not clear when meter functionality will be defined, so that meter design, manufacture and procurement can begin, and when the process of identifying and appointing a Central Communications Provider will start and finish. Therefore the potential industry "go-live" dates range from 2012 to late 2014.
Industry needs to know how DECC/Ofgem intend to deliver the necessary industry infrastructure, customer engagement plans and governance

arrangements for smart metering. We expect the DECC/Ofgem smart metering implementation programme to deliver a number of key products, including:

- legislative framework (i.e. licences, Codes),
- definition, procurement and implementation of central communications services
- the detailed definitions of the detailed market design (i.e. business processes, interface specifications)
- metering system specifications
- local and WAN communications specifications

If any of these elements are expected to be delivered by industry outside the Ofgem/DECC programme, then industry needs to know as soon as possible so it can prepare appropriately.

Don't Underestimate Significance of Implementation Effort Required by Suppliers and Other Industry Parties

We are concerned that the scope and scale of change and therefore implementation effort for Suppliers and industry is currently underestimated by Ofgem and DECC. The Impact Assessment estimates the changes for IT for the market to be £42m, but this is likely to be the order of magnitude of system changes in a single supplier alone. We expect that some of these supplier costs may have been allocated to other cost streams in the Impact Assessment.
We cannot provide exact figures as the trade association, but we believe that the level of change for suppliers has been underestimated by an order of magnitude.

Phased Output from DECC/Ofgem Programme

Suppliers' and other industry participants' internal programmes will have a number of workstreams, for example: meter procurement; billing systems development; metering service procurement/development. All will have different dependencies on the DECC/Ofgem smart metering implementation programme in terms of content and timing. There are a number of examples:

- An early definition of the metering system specification will be required for procurement of metering systems.
- A number of design baselines will be required with increasing levels of certainty and detail in the design to allow supplier programmes to complete the design for their own system changes or issue ITTs for services and systems.
- Suppliers need to know the HAN and WAN communications definitions and who should own, install and maintain what equipment, so that this can be embedded into metering systems and back office systems.

The ERA will continue to develop a plan for what will be required and when and will share this with DECC and Ofgem as soon as is practical. It is essential that the work within the Prospectus gives more certainty to allow all industry participants to manage their internal programmes.

Business Readiness/Market Testing

All of the industry developments will need to be drawn together into industry testing to ensure that the market definition actually works and that market participants can robustly operate within the market. Experience shows that this is time consuming and needs careful planning if deliverables are to meet quality and cost requirements.

This will be on the critical path at the end of the programme and therefore the business readiness planning of all industry participants for smart metering must be part of the critical path analysis.

Testing and implementation planning must be embedded in programme thinking as early as possible to minimise the risk of issues at the end of the programme.

The impact on other related industry programmes must be considered (e.g. Project Nexus, ELEXON developments) as there is a risk they could compromise the smart metering development if the dependencies are not clearly understood early.

The sooner that potential issues are identified, the less costly it will be to resolve them.

Scope of Central Services for Smart Metering

The ERA has sent to Ofgem our view on the strategic vision for smart metering under a central communications service as a separate submission to this information request. We see the cost benefit and impact analysis of whether smart metering functionality is delivered in centralised or distributed services as being absolutely critical in defining the market design. This vision is viewed as a starting point from which to engage a wider stakeholder audience to confirm the validity of some of the assumptions that have been made, and the practicalities of implementing change in distributed services or centralised services.

The ERA plan to develop their thinking on the impact of distributing or centralising smart metering functions and will share this with DECC and Ofgem as soon as is practical.

There is not a “No Change” Option

We have provided our view of the strategic vision for smart metering, but even if only the minimum centralised option of a communications network service is delivered, there are significant changes required to industry and supplier systems and processes for distributed systems. There is no reason to think that the option with minimum centralisation has the least change, takes the least time or is the most cost effective option. There is considerable further impact analysis to be completed before the scope of centralised services can be defined.

The ERA plan to produce materials including further detail on the implications for stakeholders of centralising functions into the Central Communications service or leaving them distributed into industry.

Local Coordination and Customer Engagement

The ERA welcomes localised communications with customers, as we believe this will help to deliver benefits to customers. However, there are many considerations that need to be taken into account for any localised or targeted

roll-out and we welcome early analysis and discussion on the impact of any local co-ordination measures in a supplier led roll-out of smart metering.
Any potential targeting of customers or localised roll-out needs to be considered in terms of the priority of Government policy drivers, e.g. maximising positive cost benefit case, carbon reduction, energy efficiency, fuel poverty.
A thorough impact analysis of local co-ordination options needs to be concluded in Phase 1 of the Smart Metering Implementation Programme.
All this needs to be considered in the context of an aggressively competitive supply market and a mixture of dual and separate fuel supply.

Metering System Functionality

There are a number of high level decisions on meter functionality to be addressed as soon as possible;

- Gas Valve – also discussed in detail below
- Network Operator requirements – whilst being developed currently, they remain at an initial stage compared to the Supplier requirements
- Metering system configuration – confirmation that gas and electricity meters will connect to a separate WAN Communications Box
- Interoperable interfaces – whilst the discussion on software, protocols and data solutions may take time to resolve, there is an early need to clarify what hardware will be required within meters themselves, particularly for the HAN, as this is likely to be ‘baked’ into the meter itself rather than form part of a wider metering system

Accepting that clarifying some of these issues within the Prospectus will be challenging, even once these policy decisions have been made, there will still be a requirement for detailed work on technical interoperability before it will be possible to issue a detailed tender for meter procurement.
An early view of the meter functionality decisions will be invaluable in resolving some of the key smart metering ambiguities and testing the market for meters.

Gas Valve Functionality

It is essential that metering system functionality is finalised to an acceptable level of detail within Phase 1 so that suppliers can initiate the supply chain to purchase metering systems. The GB smart metering solutions will be unique globally, and meter manufacturers will need time to adapt existing designs and production facilities, and to prepare their own supply chains.
We recognise that safety is paramount (e.g. supply may be enabled but requires local human confirmation) and would welcome the opportunity to provide input to the independent assessment of gas valve functionality.
This needs resolution as soon as possible, and suppliers need to be central to this decision given their relationship with the customer and their responsibilities for procurement and maintenance of meters.

In Home Displays

In Home Displays will need to be procured by Suppliers and therefore the minimum requirements of displays and policy on how displays will be offered must be resolved in the prospectus in Phase 1. We support Government’s view

that a solution is needed to cases where the customer does not want an in home display (or any other form of energy information).
We are keen to participate in the work in the Implementation Programme on defining the policy for provision of displays. It is essential that the defined rules for IHDs clarify issues around: minimum functionality, what data should be provided to consumers, how changes of supplier are treated, branding the IHD and agreement on suitable support for customers taking fuel from 2 suppliers. It is vital that this work keeps tracking advances in technology and understanding of consumer response in order to avoid providing obsolete devices.

Interoperability is Crucial
The Government Consultation response was reasonably silent on interoperability and there is a concern that the large body of work needed to deliver interoperability is being underestimated. Although the centralised communications service and agreement on the minimum meter functionality should deal with some interoperability challenges, essential to a cost effective rollout is overcoming issues around commercial interoperability. The GB market has unique challenges to deliver interoperability given the chosen market model and this will require substantial amounts of technical and market design work.

Commercial Interoperability
With meters staying on the wall following a CoS event being a key objective, there will be a need to ensure commercial interoperability for instances where a Supplier takes on a site where they have no metering contractual arrangements in place. No other implementations around the world have taken this vital step.

Stranding for Legacy Metering Assets
The ERA still believes that there is a need for a fair and equitable financial mechanisms to deal with stranding, adding that there is a risk that metering costs could increase in future as asset owners build in a greater level of risk into the costs for meter rental.

Early adopters of advanced or “smart-ish” metering propositions
We believe that there will have to be some trialing done by suppliers to test smart meters, the infrastructure and back office systems.
The absolutely key principle of any arrangements put in place to cover early adoption must be that the delivery of the smart metering programme should not be compromised or de-stabilised. It is crucial to concentrate on the robust, timely, cost effective implementation of smart metering in GB.
It is also important to assess what arrangements might be put in place for change of supply for early adopters.

Need for Interoperable Non-Domestic Solutions
Maintaining multiple solutions in the non-domestic sector does not deliver interoperability (and therefore may lead to a change of meter with a change of

supplier). The smart metering implementation programme will be considering requirements for CCP in Phase 1 in parallel with this and this needs to consider how to integrate non-domestic communications (or not). The requirements of this market sector for smart grid should be considered as an input to these requirements.

2 year must inspect obligation

The Impact Assessment retains the need for a 2 yearly site visit, but we do not believe that the impact of retaining this obligation has been accurately captured, as this will compromise the ability to realise meter reading cost savings.
The current regime must be reviewed and this should be subject to analysis in Phase 1.

Review the existing recertification/policy exchange programmes

There does need to be analysis of the options to amend the current recertification/policy exchange programmes for the period prior to roll-out and during roll-out of smart metering.
The ERA is pleased with the initiative with the NMO on IST for pre-MID meters and looks forward to an active engagement through the development of approaches to address these issues, which remain important for the Prospectus.

Industry Codes & Governance

The new smart metering arrangements will require new governance arrangements and the ERA suggested that there would be a need to create a “smart metering body” to manage new arrangements. We suggested that Ofgem would be best placed to take the lead on this area.

European Standards

The programme must proactively engage with the European standards initiatives to ensure their parallel developments are consistent and timely.

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