

Your Ref:

Our Ref: Ofgem E-Serve/10/02/cj

27th September 2010

Smart Metering Team
Ofgem E-Serve
9 Millbank
London
SW1P 3GE

For the attention of Ms. M. Coaster

Dear Margaret,

Consultation on Smart Metering for Electricity and Gas

Thank you for the opportunity to provide our updated views following the publication of the Smart Metering Implementation Programme Prospectus in July.

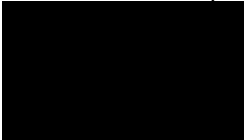
Itron welcomes the publication of the Prospectus and the clarity which it provides, and we look forward to working with Ofgem E-Serve not only through our trade associations BEAMA SMA and SBGI, but also on a one-to-one basis when required.

As the global market leader in Smart Metering technologies, Itron understands the benefits that Smart Meters can deliver in reducing carbon consumption, providing energy supply chain security and ultimately benefiting consumers through lower energy bills. We believe that the Prospectus marks an important step in establishing the industry structure and requirements to enable the future rollout across GB.

We trust our views will be of value to Ofgem E-Serve, not only as a global provider of AMI products, systems and services, but also as the leading provider of prepayment electricity smart products, PPMIP services and Pay-As-You-Go solutions to the UK market.

We would be more than happy to discuss our thoughts in more detail at your earliest convenience, however in the meantime if you require further information or clarification of anything contained within our response, please do not hesitate to contact me.

Yours sincerely



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About Itron

Itron Inc. is a leading technology provider to the global energy and water industries. Our company is the world's leading provider of intelligent metering, data collection and utility software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimise the delivery and use of energy and water.

Our products include electricity, gas, water and heat meters, data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and related software applications; as well as project management, installation, and consulting services.

Itron in numbers

- 2009 revenue: 1.69 billion \$
- 8,500 employees
- 33 manufacturing facilities, 13 R&D centres and over 60 sales and administrative offices
- Sales in 130 countries to more than 8,000 utilities
- 125 years experience
- 14 million units under AMI contracts

Itron in the UK

In the UK, our combined organisation is c. 550 people strong, providing metering solutions, software solutions, implementation services and customer support to the UK market. These capabilities include Itron Meter Data Management (MDM) consultants and support personnel, who are also located in the UK.

We are also a leading provider to utility companies for Managed Services Solutions in the UK, including our TaleXus™ prepayment managed services solution for electricity PPMIP, which is used throughout the UK by many of the leading utilities.

Our UK headquarters is located in Felixstowe, Suffolk, with responsibility for the manufacture, sales and support of domestic and C&I electricity metering systems into the UK market. This site is also our designated Centre of Excellence for Systems Development, including AMR/AMI, Prepayment and Pay-As-You-Go (PAYG) solutions.

Our UK Gas, Water and Heat metering business is located in Stretford, Manchester.

Further company information is available at www.itron.com

Reference Document: Prospectus

CHAPTER 2 (responses requested by 28 October except for asterisked questions, where responses are requested by 28 September)

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 believe that the success of smart metering will be determined largely by customer perception. We advocate “the continuity of customer journey” for prepayment meters and we believe that customer confidence will influence the acceptance of next generation metering methods.

Following a careful pre-briefing through a clear Supplier communications program, the customers’ first encounter with smart meter technology will be the installer who carries out the meter installation. Ensuring the right field deployment tools, processes, and installer-training to adequate standards will be of paramount importance in achieving a positive customer experience.

It is therefore important that a Code of Practice is developed and adopted for all smart meter delivery and that this is promoted positively to end-customers in order to protect their interests and raise technology confidence.

CHAPTER 3 (responses requested by 28 October except for asterisked questions, where responses are requested by 28 September)

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 believe that the functional requirements within the prospectus are fundamentally sound, however there are some areas where further work will be required, for example the calculation of energy in gas meters.

We also consider that this rich feature set will need careful introduction to the end-consumer in order to ensure that the full benefits are realised and that any opposition to smart metering is minimised.

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

We believe that all technical specifications should be open and standards-based to allow for multiple head-end systems in the DCC for go-early Suppliers, with a route to working towards standardised system interfaces.

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 agree with the proposals for requiring Suppliers to deliver the rollout of smart meters, with the management and coordination of rollout left to Suppliers to determine.

Our comments covering interim targets and prioritisation of customer groups are included in our responses to Chapter 4 Questions 7, 8 and Chapter 5 Question 10, on pages 12 and 13.

CHAPTER 4 (responses requested by 28 September)

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 believe that a staged approach to rollout ahead of DCC carries risk, but we believe this can be mitigated, if existing, proven technology is deployed.

We believe that application of technologies with track records for reliable operation reduces technical risk and hence rectification costs within the smart metering programme. This approach should deliver fast implementation of meters, HAN and WAN in a way that reduces the DCC start-up risks.

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?

We believe that there are significant hurdles to be overcome in terms of the rollout and whilst wishing to bring forward the programme we feel the risks introduced by bringing the rollout forward of the proposed staged approach outweigh any benefits.

In relation to the large rollout of meters, the conversion in some geographical areas of token PPMs to key meters could provide useful input. Data has to be transferred to the new meter that is not required in a credit meter exchange, adding complexity to the process, and could indicate issues that will need to be managed in a smart meter rollout.

Where possible the use of existing technology supported by evolving current business processes should be adopted, as this can deliver a large proportion of the benefits of smart metering early while introducing less risk in reducing timescales. Itron has a wide experience within its PPMIP business of moving to key meters as well as the introduction of new vending channels and we would be pleased to discuss this in more detail with Ofgem.

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 believe that the timeline is realistic and achievable, however to ensure interoperability it is crucial that the industry follows official guidelines and procedures via recognised standards bodies and associations that have proven open standards experience, rather than through self-appointed committees of experts.

In this respect, the members of BEAMA SMA (Smart Metering Association) and SBGI have expertise and a key role to play in defining interoperable solutions, with, transparency, governance and technical validation all requiring careful consideration. It is unlikely that small groups working in isolation can deliver the broad requirements that genuine and sustainable interoperability demands.

Itron would welcome the opportunity to participate and contribute to the development of truly interoperable solutions and we believe that suitable vehicles for this work could be developed from existing UK/European organisations e.g. IDIS Association.

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 believe that Ofgem E-Serve has a key role to play in guiding the industry to a workable solution, however this should be balanced with the appropriate level of industry participation and expertise from party agents and established companies with proven experience in this sector.

Reference Document: Statement of Design Requirements (94b/10)
Deadline: 28th September

CHAPTER 3

Question 1: Should the HAN hardware be exchangeable without the need to exchange the meter?

We support the position where there is no requirement for the HAN hardware to be exchangeable without exchanging the meter. We believe that management of interchangeable HAN technologies would be difficult to control, leading to additional support requirements and customer confusion. The less flexibility provided at the meter the better in this respect, as this will reduce the risk of tamper, which should be kept to an absolute minimum.

Question 2: Are suitable HAN technologies available that meet the functional requirements?

We believe that ZigBee® Smart Energy profile meets the functional requirements, with advantages in terms of interoperability, certification and multiple chipsets.

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?

We believe that roaming SIMS and third party managed communications, which can be remotely turned on and off, are the way forward.

Engineer site visits to swap SIM cards (which will be behind an anti-tamper cover and sealed from the public), must be avoided on the grounds of cost and inconvenience to both customers and Suppliers.

It is also undesirable to be dedicated to a single network provider who may not offer full regional coverage or network resilience.

We would propose that SIMS should be operator agnostic and have a roaming capability similar to their mobile phone counterparts when abroad. SIMS should also be self-searching for best coverage particularly in the install phase and if a failure occurs on the primary network provider during use. The cost of administering a roaming SIM functionality could be built into the Change of Supplier agreement and centrally managed by the DCC / data communications provider.

An added benefit of this approach would be that a SIM would be “paired” to its meter during manufacture or at installation, thereby offering increased security protection to tampering and fraud.

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

We believe that the catalogue is a key step in the development of full technical specifications and we welcome its clarity. However there are many questions that are as

yet unanswered, including interaction with requirements which will need more thorough testing and analysis of use cases.

Our experience of many product developments shows that interaction between requirements in the development of the technical specifications is hard to predict and will inevitably only come to light during the process of writing the specifications. There will therefore need to be an ongoing dialogue between the group involved in writing the technical specifications and the catalogue authors to ensure correct interpretation and prioritisation of requirements where conflicts come to light.

Question 5: Do you agree that the additional functionalities beyond the high-level list of functional requirements are justified on a cost benefit basis?

We believe that many of the additional functionalities are straightforward and are therefore unlikely to have a large impact on the cost benefit analysis. However, some functionalities will require further clarification, for example the indication of loss of supply in the gas meter.

Question 6: Is there additional or new evidence that should cause those functional requirements that have been included or omitted to be further considered?

We have no additional or new evidence to provide and we believe that it is important to avoid "specification-creep".

CHAPTER 5

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

We believe that the proposed approach will deliver technical certainty, however interoperability can only be achievable through compliance testing, certification and testing between manufacturers. The ZigBee® Alliance provides a good example of how these requirements can be achieved.

Question 8: Do you agree it is necessary for the programme to facilitate and provide leadership through the specification development process? Is there a need for an obligation on suppliers to co-operate with this process?

We believe that the programme needs to provide leadership and direction, with Suppliers and other party agents playing a key part in the process. However, we should be mindful of specification change and upgrades before we have taken the first step, as the first solution in terms of technology will not in all cases be right first time.

We believe that there is a need for a mixture of different technologies and architectures and this will evolve in future years. It is a safer approach to rely upon proven technology that is in existence today rather than trying to take too large a jump to new technology which is unproven.

Question 9: Are there any particular technical issues (e.g. associated with the HAN) that could add delay to the timescales?

We are aware of certain technical issues such as apartment blocks and “hard to do” sites, however we believe that with the evolution of technology many of these issues will be solved and therefore this should not delay the rollout of smart meters to the majority of premises where current technology is adequate.

For WAN technology, providers will need a reliable specification for supply, however we believe that this will not happen until the governance of the DCC has been decided, therefore this should be seen as a priority.

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?

Please see response to Chapter 4 Question 19 on pages 4 and 5.

Reference Document: Implementation Strategy (94f/10)
Deadline: 28th September

CHAPTER 2

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

We have no specific comments to make on this question.

CHAPTER 3

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

We believe that there is an opportunity to review the arrangements around industry processes for electricity and gas metering, such that the data flows used are harmonised where possible to allow a more seamless arrangement for new connections, change of occupancy and Supplier and other industry flows.

We also believe that further work should be undertaken in the area of prepayment, in order to understand how existing business processes could be developed in the context of the overall smart metering programme.

CHAPTER 5

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

Although not without risk, we believe that a staged approach to implementation can be beneficial in terms of “kick-starting” the programme, if carefully defined and managed. Our comments covering interim targets and prioritisation of customer groups are included in our responses to Chapter 4 Questions 7 and 8 and Chapter 5 Question 10, on pages 12 and 13.

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?

There are a number of market segments, including prepayment, where existing business processes are operating well to support of the needs of Suppliers and consumers. We believe that these more complex segments should be excluded from a staged approach, where the risks associated with not having a fully operational DCC in place could result in a reduced quality of service for consumers.

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?

Please refer to our responses to Chapter 4 Questions 18 and 19 on pages 4 and 5.

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?

Subject to the scope and details of the mandate, we believe that this assumption is broadly correct.

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

We have no specific comments to make on this question.

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

We have no specific comments to make on this question.

Reference Document: Rollout Strategy (94g/10)
Deadline: 28th September

CHAPTER 2

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?

Whilst Itron is not directly involved in the rollout of meters, it is clear that the use of interim technical solutions can deliver quick wins for customers, while industry processes and training evolve to the stage where full scale meter exchange is delivered at the rates needed to achieve the timetable. Therefore we believe that there needs to be some consideration on certainty for the applicability of interim solutions to customers based on sound, current technologies, leading to the evolution of industry and business processes required to deliver the overall smart programme.

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

The implementation of electricity smart meters and domestic-type smart gas meters to businesses will require considerable flexibility in the appointments process to ensure that smart metering does not impact business operations. This could mean synchronising the installations to times in the day, days of the week, or, in situations where large industrial processes are affected, to planned maintenance events for the site concerned. Gas meters of a size larger than the domestic-type have been installed with an AMR capability for many years and the vast majority of these meters can have an advanced metering device connected without interruption of the gas supply. Therefore these installations will have little impact on business operations.

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

We have no specific comments to make on this question.

CHAPTER 3

Question 4: What is the best way to promote consumer engagement in smart metering? As part of broader efforts, do you believe that a national awareness campaign should be established for smart metering? If so, what do you believe should be its scope and what would be the best way to deliver it?

We believe that consumer engagement is vital to the success of the UK smart metering programme, with the benefits only being realised if consumers are made aware of the rollout and the principles of energy management.

We believe that a national awareness campaign linked to new schemes (such as the Green Deal) would be a good first step towards achieving this, with local education programmes set up to enable consumers to understand what a smart meter is, what are the benefits and what will be permitted by Government in terms of overall governance. This should help to mitigate against consumer backlash against the smart metering rollout and the risk of its potential downfall, which has been the recent case in Europe and in some US states.

The Digital Britain campaign as referenced in the Prospectus would be a good blueprint to follow. Establishing a smart metering brand would allow consumers to engage, build confidence and help towards establishing a Code of Practice for marketing and home visits.

Question 5: How should a code of practice on providing customer information and support be developed and what mechanisms should be in place for updating it over time?

We believe that Suppliers and consumer organisations are well placed to develop a Code of Practice in this area.

CHAPTER 4

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?

We agree with the proposed obligation on Suppliers, which we believe should be supported by an Installation Code of Practice which includes the definition of a completed installation, as well as ensuring that current standards for safety and quality are met.

The completed installation should be gauged by proven communications to the head-end system and HAN connectivity and would be defined as where both the customer and Supplier have visibility of real time (or near real time) energy consumption for the purposes of customer monitoring and Supplier-billing based on actual (not predicted) energy usage.

In the case of multiple energy / meter installations, a “partial” completion could be awarded for the first uplink and only “signed off” when the remaining meter is connected to its Supplier billing system.

Some consideration may need to be given to installations where either the WAN backhaul or DCC functionality is absent. A WAN emulator signoff for installers using a field tool designed for the purpose would enable installers to recover some of their costs in the event of an absent WAN.

Suppliers should take all reasonable steps to install smart meters in a reasonable timescale and the Installation Code of Practice should also include time limits for incomplete installations to be resolved and signed off.

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

We believe that the setting of interim targets could be beneficial if it was to focus initial smart meter deployments on the lowest-risk, highest-return customer segments (i.e. those consumers with the greatest scope for achieving a reduction in their energy consumption). This would allow the implementation to move forward in a much safer and controlled way, whilst importantly allowing the programme to start delivering on its central objective of achieving reductions in CO2 emissions.

Question 8: Do you have any views on the form these targets should take and whether they should apply to all suppliers?

Whilst we believe this is a matter for Suppliers, the form of any targets must take into account the overall deployment risk and scope of industry change required to achieve deployment, versus the benefit to consumers and scope for achieving reductions in energy consumption. Achieving a successful, timely completion of the overall smart metering programme could be put at significant risk by any early-stage problems and therefore we believe a progressive, evolutionary approach should be adopted.

Question 9: What rate of installation of smart meters is achievable and what implications would this have?

We have no specific comments to make on this question.

CHAPTER 5

Question 10: Do you have any evidence to show that there are benefits or challenges in prioritising particular consumer groups or meter types?

There is much evidence to support the view that PPM consumers rank among the highest in terms of their energy awareness and therefore we believe that this consumer group should not be considered as a priority in that respect. Furthermore, and based on our long-standing involvement and wide experience within this segment, there are many risks and challenges to be faced in moving this specific consumer group forward in anything other than an evolutionary manner. We would be pleased to discuss this approach in more detail with Ofgem.

CHAPTER 6

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?

We have no specific comments to make on this question.

CHAPTER 7

Question 12: Do you agree that there is already adequate protection in place dealing with onsite security or are there specific aspects that are not adequately addressed?

We have no specific comments to make on this question.

Question 13: Do you agree with our proposal to require suppliers to develop a code of practice around the installation process? Are there any other aspects that should be included in this code of practice?

Please refer to our response to Chapter 4 Question 6 on page 12.