

*everything everywhere*



T-Mobile

# ***Everything Everywhere***

***Response to OFGEM Smart Metering  
Implementation Programme Prospectus***

***September 2010***

## **Summary**

*Everything Everywhere welcomes the Prospectus for the Smart Metering Implementation Programme across Great Britain. We support the Governments ambition of deployment for Electricity and Gas Smart Meters and also for the creation of the centralised DataCommsCo (DCC). We believe that the deployment model given in the Prospectus is broadly sensible and achievable, as is an accelerated rollout programme, and urge the Government to continue with its proposals.*

*Everything Everywhere believes that the implementation milestones published in the Prospectus are achievable, and that it is possible to develop a successful interim, interoperable Smart Metering service that will be operational pre-DCC.*

*There are a number of points of feedback that Everything Everywhere wishes to raise with OFGEM in order to improve the proposals, and these are detailed below. In particular, the interoperability and cost issues associated with SIM cards and switching providers needs to be explored further and addressed.*

## **About Everything Everywhere**

*Everything Everywhere Limited is the company running two of the UK's most famous brands – T-Mobile (UK) and Orange (UK). Owned jointly by Deutsche Telekom and France Telecom respectively, Everything Everywhere Limited is the UK's biggest communications company, with a combined customer base of over 30 million people and 700 retail stores across the country. Everything Everywhere Limited plans to transform the industry by giving customers instant access to everything everywhere, offering the best value, best choice and best network experience in the country.*

## **Everything Everywhere's experience in Smart Metering**

*Everything Everywhere, through its parent companies, has extensive experience in the smart metering field from providing smart metering systems in a number of the European markets and is currently working in partnership with key companies in the UK energy sector and operating trial smart metering systems within the UK.*

*Everything Everywhere, through Orange UK, has provided the Departments of Energy and Climate Change and Business, Innovation and Skills, with detailed information on how smart metering systems can work over the last eighteen months.*

## ***Everything Everywhere's response***

*Everything Everywhere agrees with and fully supports the proposed staged implementation plan through to DCC launch in 2013. We believe that the proposed model is the right one to ensure that an accelerated rollout is completed, that greatest leverage over commercial considerations is achieved, that rollout costs are kept to a minimum, and, of course, that the Government's broader energy use policy ambitions are achieved more quickly.*

*Our discussions with the energy community have shown that there must be an agreed consensus reached on the functional specification, service scope and process design. Without this, there is a high risk of cost inflation, system failure and that mandated smart metering services deployed by each energy retailer will not be interoperable with each other.*

## ***Communications Business Model and DCC scope***

*Everything Everywhere agrees with the broad scope outlined for DCC operation and the staged implementation approach. Everything Everywhere, however, believes it is essential that meter registration is included within the initial scope and that the DCC licence holder should be independent of the activities it is tasked with developing.*

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

*Everything Everywhere does not believe the DCC should be responsible for maintaining multiple metering translation or headend services. If retailers desire different translation or headend services, then the responsibility for hosting and management should lie with them. We believe that standardisation would negate the need for centrally running multiple platforms that are broadly performing the same function.*

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

*Meter registration functions must be included within the initial scope for the DCC, as the meter registration will need to be intrinsically linked with communications registration. This will ensure successful service deployment in the field from launch, and avoid complex interim integration arrangements, additional costs and inconvenience. The meter registration functions and processes will need a full review to ensure that communications registration functions and processes can be integrated.*

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

*Everything Everywhere's view is that data processing, aggregation and collection activities should be included in the DCC's scope but that they need to be reviewed and improved in light of the additional data flows available from smart meters and with the desire that communications services will also need to be integrated in these industry processes.*

## **Statement of Design Requirements**

**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 to change out SIMs.**

*This issue is possibly the biggest threat to the successful and efficient running of the system proposed in the prospectus.*

*When using the mobile network for smart metering, SIM cards offer several benefits in deployment and also security. The SIM is an integral part of the operation of a mobile network and provides secure authentication of individual connections to the wider network. Every SIM card contains unique security keys that allow it to connect securely to the network and be easily identified.*

*SIM cards in use today by Everything Everywhere's customers remain the property of Everything Everywhere, as is the case with all other network operators, and such SIMs are deliberately not interchangeable between networks. This means that the design and security implementation of the SIM remains under Everything Everywhere's control. SIM cards are, therefore, 'tied' to the issuing network operator and it would introduce unacceptable network security issues to change the provider without changing the SIM card. All mobile customers receive new SIM cards when changing operators – the mobile number portability system is limited to the portability of numbers and not the SIM cards.*

*Therefore, Everything Everywhere cannot support a change of network provider without a change of SIM card.*

*Some Smart Metering implementations have considered using a SIM card issued by a foreign mobile operator that would be able to switch between different UK licensed mobile network operators. However, this would not change the issue of changing network operator at contract end, as the SIM would still be under the ownership of the foreign operator. It also raises issues around the security of end-to-end connectivity and the sending of personal data and energy use data outside of UK borders, which is unlikely to be desirable for the Government given the sensitivities associated with the nation's energy use. Of course, there would also be increased costs with the transmission of data because of the way international roaming takes place and the roaming charges made by foreign mobile operators.*

*Accordingly, we believe that it is important to keep the possibility to switch between different mobile networks from a commercial perspective, but that SIM cards would have to be changed if mobile network operator has to be changed.*

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

*Some of the examples of service levels provided in the statement of requirements will have a tremendous impact on the day-to-day operation of Everything Everywhere's wide area network (WAN) as they are not in line with current technical capabilities. e.g. 'Firmware updates to all meters within 60 minutes'. The proposed service levels need reviewing with WAN and home area network (HAN) providers before building the full requirements documentation. In addition, the cost of supporting some of the proposed service levels will also need reviewing. We note that build-out costs to meet the proposals in the Prospectus have not been included in the impact analysis.*

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

*Everything Everywhere agrees that a central specification will help with accelerated development of smart metering in the UK. There are suitable HAN and WAN technologies available today that meet the requirements in the functional requirements catalogue. However, OFGEM should note that not all of these available technologies are easily interoperable with each other. Interoperability needs to be defined from a standardisation viewpoint, and not from a technology viewpoint. Installations of different communications technologies require different hardware, data formats and management configurations, making interoperability swaps between two different infrastructures very costly to achieve. We believe that it will be possible to develop interoperability between differing HAN and WAN technologies only when using technologies that are open and have gone through a standardisation process. We also believe that it will be important for the DCC to rely on suppliers who are able to deploy different technologies at the same time to ensure the greatest smart metering coverage and cost efficiency.*

*One functional requirement that Everything Everywhere wishes to see retained is pulse output from Smart Meters. This allows for the meter to be connected by a wider choice of communications technology, and also allows access to meters that cannot connect to mains power (e.g. Gas and Water meters).*

## **Rollout Strategy**

**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?**

*Everything Everywhere believes that local co-ordination will be beneficial to both WAN performance, Smart Metering acceptance and Local Authority Planning activities. Co-ordination of meter upgrades in, for example, large apartment blocks would help with some deployment activities. The proposed view does not align with the management of planning, and negotiation for, infrastructure builds with Local Authorities. This activity can be time consuming, and is best completed on a rolling basis as needed.*

*Everything Everywhere also believes that a local coordination will bring economic benefit to the DCC by allowing roll out costs to be broadly reduced. Ofgem will be aware of the Department for Communities and Local Government's desire for better coordinated 'utilities' work.*

*Additionally, Everything Everywhere believes that the proposed rollout strategy, which is a rollout without local co-ordination and planning, will favour certain WAN technologies and eliminate others. Technologies that need local rollouts, such as mesh radio and other local area networks (LANs), will probably not be economically viable under the proposed rollout structure. Everything Everywhere has been able to pilot smart metering using a combination of technologies in the same area and believes this is the best way to reach the biggest coverage of installed meter base.*

*Everything Everywhere also notes OFGEMs optimism bias adjustment for 'harder to reach' meters in the Impact Assessment. OFGEM should recognise that in some locations, meters will be impossible to reach by WAN.*

## **Implementation strategy**

**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?**

*Everything Everywhere agrees with the proposed implementation timeframe and staged implementation model in the Prospectus. We believe that this offers the greatest chance of accelerating rollout to market. The functional specification needs to be tightly adhered to in order to ensure interoperability. A staged implementation approach will ensure the greatest benefit from market and commercial forces on the rollout timeframes.*

## **Regulatory and Commercial Framework**

*Everything Everywhere is broadly in agreement with the proposed framework, although there are a few points which need clarification:*

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

*Everything Everywhere has no issue with the ownership and installation of WAN modules being the energy supplier's responsibility. However, it is unclear where responsibility for module specification and accreditation lies. These activities should be the responsibility of the WAN provider.*

**Question 7: Do you agree with the proposal that the WAN and the HAN in customer premises should be shared infrastructure, with the installing supplier retaining responsibility for ongoing maintenance? If not, would you prefer to have an arrangement by which if the gas supplier is the first to install, responsibilities for the common equipment is transferred to the electricity supplier when the electricity smart meter is installed?**

*We do not agree with the proposal for the gas supplier, when they are first into the premises, to setup the HAN and WAN communications. Seeing as it is likely the communications modules will be a slave of the electricity meter, it is more feasible to ensure electricity smart meter installation occurs before gas smart meter and other equipment installation. Also the benefits from supplied IHDs will probably be lost in those households only receiving information on gas consumption, not electricity.*

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

*It is important to ensure that access to the WAN and HAN communications module is kept open, and not solely for the use of the energy supplier. There is a risk that the energy supplier can start to use this infrastructure to provide non-core energy services into the home, which would create possible competitive or monopolistic issues in the future.*

## ***Future Commitment and contacts***

*Everything Everywhere is willing to provide input to workshops and review groups in the lead up to smart metering rollout and DCC launch. In particular, Everything Everywhere would like to actively participate in the Data and Communications Group (DCG) Smart Metering Design Group (SMDG) and consumer engagement and rollout workshops.*

### ***Contacts:***

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]