

SMART METER IMPLEMENTATION PROSPECTUS

Orsis (UK) Limited is a smart metering services provider established in 2006, and providing multi-utility smart metering implementations since early 2007: both in Commercial and Industrial premises; and in Domestic through work with the Energy Savings Trust.

We have installations in the Government buildings, hospitals and major high street retailers nationwide.

Orsis is fully supportive of smart metering implementation, and pleased that the Prospectus recognises the need for staged implementation: but the technology development and deployment experience of Orsis and its parent company (Revenco International) identifies ***significant delivery risk*** in the proposed functionality and industry design. This will add to *timescales, costs, and customer dissatisfaction*, and will result in a **failure to meet Government objectives**.

The Current Approach

The proposed approach is a standardised, high specification metering installation programme which will take eight to ten years to roll-out. This would mean any changes to metering requirements or any issues arising from the meter installations would see meters currently being installed, having to be replaced in the future with the costs ultimately falling on the customer.

The proposals involve installing expensive (estimates £250 per meter) meters that will use a sim card to transfer data back to the supplier. The In-Home Display (IHD) will be linked to the meter and the customer will be able to see fairly accurate energy use. However, the industry design will mean that the battery life will be low and the maintenance of the IHD will be more frequent, increasing customer cost.

Installers will need more time to be trained due to the complexity of the meters at a time when there is already a shortage of people to install meters which will make it difficult to meet the Government's roll-out deadline.

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| <p>The introduction of smart meters <u>does not</u> require changes to industry processes; and attempting a large roll out of technology together with major industry system changes represents the greatest delivery risk.</p> |
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Orsis believes what is being offered here is imaginative, but expensive. There is a proven solution today, at a fraction of the cost of the proposed implementation, which can and will deliver the Government objectives well within the timescales required.

The Alternative Approach

The solution Orsis advocates is more of a 'back-office' approach which involves installing a fit for purpose meter, which meets the minimum requirements, in homes that would transfer information via a low frequency transmitter to a localised data point. This creates a localised mesh network, which would then transfer it to a

central data point. Using this method rather than more complex meters at source would very significantly reduce the cost which will ultimately benefit the customer. It will also enable the Government to meet its shortened time-scale for roll-out whilst also achieving the Government's objectives of customer control over energy use.

This solution is cheaper than existing manual meter reading, and will still meet the government's objectives.

Smart metering roll out **can** be achieved with current industry systems and processes – shortening timescales, significantly reducing costs and removing serious risks from a massive industry change programme.

The most effective way to achieve interoperability is to keep the system simple, as long as the smart meter can provide a meter reading that is suitable for billing by any supplier, and for use in the Settlements process: then it is fit for purpose.

The Dangers of Excessive Complexity

We are concerned that the Programme proposals are overly and unnecessarily complex, this combined with the necessary level of customer interaction and required behavioural change means the project is ***larger than anything previously attempted***. The energy industry has a poor track record of implementing large, central change programmes.

The market is already delivering smart metering solutions; provided by British Gas, First Utility and Utilita. Energy suppliers are also now beginning to provide a range of IHDs, and appliance control devices. All are making commitments to reduce customers' energy consumption.

The Orsis solution is to propose reduced technical complexity, and remove the significant risk of failure of associated large scale changes to industry parties, governance, systems and processes.

Orsis is concerned that the calls and claims for industry system and process simplification are not materialising and that **additional complexity and barriers to entry are a more likely consequence.**

1994 saw the introduction of the 100kW competitive market in electricity, which took over 18 months of industry effort to resolve for around 50,000 customers: largely as a result of business process and commercial failures, rather than metering or communications technology. This resulted in massive customer service and settlement failures - and in the loss of at least one new market participant who did not have the financial resources to survive the industry created turmoil.

Orsis believes the Impact Assessment has focussed on cost issues, whilst **ignoring the optimism bias for benefits**. Many of the functional and implementation aspects are still being considered by the Programme, and current costs and benefits can only be regarded as formative. Orsis also feels the Impact Assessment and the optimum bias on benefits does not take account of the fact that energy consumption volume will reduce due to existing Government initiatives; and the fact that the carbon

emissions used for calculation of projected benefits is based on current levels rather than recognising the mandated levels of renewables in the future.

The cost of a smart meter rollout will be significant, and ultimately borne by customers. By simplifying the implementation, the money saved could be spent on further promoting energy efficiency measures; such as better home insulation, and would achieve even greater reductions in carbon emissions.

Giving the Customer What they Want

Orsis believes that the results of the Energy Demand Reduction Pilot (EDRP) should be taken into account when assessing the benefits of various schemes, and the effectiveness of the IHD among other initiatives. Orsis, along with other providers, can offer the customer access to demand information in other ways; for example, through a web-based function, and messages to mobiles phones. Customers already receive other bills and information via the internet. Orsis believes the IHD is only one solution to the communication of consumption information and that this should be a matter of customer choice rather than mandating this one solution for all, which has the potential to be costly and ineffective.

Over-engineering the IHD will lessen its effectiveness, customers are largely driven by price and therefore simply informing them of their usage and how much it is costing will be more than sufficient for most customers. Studies undertaken with the Energy Savings trust would support this view.

Smart meters themselves will not deliver improvement in the Change of Supplier (COS) process. A three year programme of work by the Energy Retail Association (ERA) – the Customer Transfer Programme (CTP) - could not propose any substantive changes to the COS process.

Regarding data quality as a “legacy issue”¹ seemingly disregards the consequences of the last significant industry design change – the introduction of the competitive market in 1998, which continues to give rise to poor customer service and high costs to serve. The CTP identified data quality as the largest single industry issue, and this is reflected in many industry participants still failing to achieve the 97% target of actual readings at final settlement reconciliation, twelve years after the market was introduced.

In addition to the complexities of unnecessary industry change, the technology, commercial and societal challenges of delivering the proposed Wide-Area Network /Home-Area Network (WAN/HAN) architecture should not be underestimated. There is no “one-size fits all” HAN solution and this will cause implementation and operational issues, giving rise to delays, costs, and mitigated benefits.

The sheer range and complexity of the solutions that will exist in the home will provide significant maintenance challenges and costs that have the potential to swamp any claimed benefits from reduced billing complaints handling. This will be equivalent to, or greater than, telecoms service providers providing maintenance to in-home routers and ancillary devices.

¹ Prospectus – Regulatory and Commercial Framework; Para.2.4

Current business processes are facilitating smart metering – but current business processes are not adequate for customer service issues. Is this really the issue that the Smart Metering Implementation Prospectus should be addressing?

Staged Implementation

The recognised need for staged implementation will allow for the pragmatic introduction of innovative new products and services as required by energy industry participants and customers alike - rather than attempting prescriptive solutions now. Energy Suppliers are already progressing their own Smart Meter Implementations, provision of IHDs and end-use appliance control over a HAN, and the introduction of time of use tariffs. All of these initiatives have the desired impact on customer behaviour and all of which have been implemented under current industry arrangements.

With appropriate and straightforward Licence amendments by the Government under the powers of the Energy Act, the implementation of smart meters could commence at least one year earlier than the proposed milestone of summer 2012 (which we believe is significantly at risk). We would refer to the highly successful smart meter deployments most recently in Sweden, but also in the USA since the 1990s, where the regulatory requirement to provide accurate monthly bills was sufficient for deployment to commence. Orsis would not accept the often heralded argument that the UK market is an obstacle to permit this.

Based on the points we have identified in our responses, and the ongoing industry design and implementation considerations that will highlight further issues, Orsis is of the opinion that the Government required Impact Assessment has not taken account of all the costs and risks to benefits.

Orsis is aware that we may have raised a number of issues that require further clarification – particularly the detail surrounding what our alternate staged implementation solutions may be, and we would welcome to discuss these in greater detail with the Programme.