

Taking an intelligent approach to smart metering



# Energy Industry Smart Metering

## Realities, challenges and choices facing the UK energy supply industry in a smart metering environment

A white paper prepared by Vertex utilities division

The Government's recently announced decision to commit the UK to smart metering, which will see every home and business across the country make the switch by 2020, means that the energy industry faces a logistically complex programme that is on a scale not seen since the changeover to North Sea gas in the 1960s and 70s.

In this White Paper, prepared by Vertex, we examine some of the key benefits associated with the switch. We review the immediate challenges that the energy supply industry will encounter across the period as it struggles to pilot smart meter networking while coping with obsolescent legacy CIS platforms. We then highlight options available to energy providers as they seek to safeguard and build their customer bases while making this quantum leap into the future.

### Smart metering - the big bang

Smart metering, often talked about in recent years as a potential "big bang" way forward for the UK energy industry has, in the space of a few short months, gone from hypothesis to reality.

While the Department of Energy and Climate Change's Energy Bill 2007-2008 encompasses 11 measures, it is the one that permits the Secretary of State to require suppliers to fit smart meters that has drawn some of the industry's most significant attention.

### The Energy Bill - a big response to a big issue

Clearly, the Bill has to be viewed in its widest context; its elements, so the Government believes, will provide the country and the economy with an orchestrated response to meet the significant challenges ahead. And the reality, as the vast majority within the industry would recognise, is that these are tremendously onerous challenges. Put simply, the Bill is a central element of the Government's response to an agenda that includes the need to tackle climate change and CO2 emissions; the need to balance energy supply and demand; the requirement to safeguard the security of energy supply; and the need to tackle chronic and growing levels of fuel poverty. But if there can be little dispute that the Energy Bill is an ambitious response to such widely based and significant issues, there is also a consensus that in the longer term, smart metering will play a fundamentally vital role in securing this new future.

## Smart metering will play a central role in tomorrow's energy market

The benefits attributed to the move to smart metering are broad. The move will, at its most fundamental level, transform relationships between energy suppliers and their customers. Smart metering will equip customers and businesses with real time information on usage. This transparency should be sufficient for customers to take real control over their energy consumption, and give them the visibility to reduce overall levels of use – which will contribute, so it is hoped, to the Government's stated target of reducing the country's CO2 emissions by 60% by 2050, with real progress achieved by 2020.

It is also expected that this transparency of energy use that will come from smart metering will, over time, begin to shape the market around distinctive clusters of energy consumption patterns.

Such a clustering of user groups should enable the industry to develop multiple tariff offers in a similar way to that created within the mobile phone market – and give customers the opportunity to shop around, not only amongst providers, but also across those tariffs most appropriate to their needs.

In parallel, suppliers will acquire increasing accurate knowledge about energy use, assisting them to work with generators and infrastructure providers to achieve a more cohesive and stable balance between supply and demand. This managed equilibrium, so the Government hopes, will be a key element in securing the stability and security of supply so crucial to ensuring a sustainable market in the longer term.

## Suppliers – first the pain, then the gain

And while, superficially, the introduction of smart metering might sound like bad news for the industry – the enforced introduction of an expensive change programme that will presage a significant and permanent reduction in customer use and therefore revenues – there are other wins that should drive more confident energy providers to tackle the change to smart metering sooner rather than later.

In overall terms, smart metering should set the scene for suppliers to leverage enhanced relationships with customers to the point at which they are able to develop new products and services both to add value for users and enhance profitability for shareholders. Moreover, with the pain of change out of the way, suppliers should see a significant fall in their cost to serve as meter reading costs fall out of the picture and demands on call centre services reduce as customer enquiries and complaints reduce. Further, as and when satisfaction levels increase, customer churn costs – and the cost to acquire replacement customers – should also decrease.

## Short term challenges and the shortcomings of legacy CIS

Nevertheless, in the short to medium term, the switch to smart metering is almost certain to create a significant and pressing challenge for energy providers. The process of scoping and implementing pilot projects then extending roll-out programmes is likely to be organisationally complicated, and the imposition of this fundamental change all comes at a time when today's customer information systems are increasingly under the microscope and most of the big six energy retailers are already in the process of planning replacements.

Put simply, legacy applications – many of which were initially established decades ago to support smaller scale, regional operations – are finding it difficult to cope with everyday issues that include customer churn, rising debt, and increasing query and complaint levels. The reality is that no legacy solution currently in use is going to be able to carry on in a smart metering operating environment that will generate up to 4,000 times more information that will need to be stored, accessed, interpreted and used.

And while migrating to a next generation CIS solution will help resolve some of these challenges, it is not necessarily an immediate panacea. The history of the industry is littered with cautionary tales in which utilities have struggled in migrating from one platform to another, with many utility professionals still bearing the scars. A successful CIS replacement programme will require an enormous level of focus and commitment from all areas of the business; it is not just an IT project.

## Missing the window is not an option

Moreover, almost regardless of the merits of a new system in comparison to the old, it is always going to be difficult in terms of management focus and concentration to choose between operating two systems in parallel, or going for a clean break.

In short, the timescale, cost and complexity of such a move means that it will be difficult for many energy providers to get their short to medium term commitment to smart metering off the ground.

But the reality is that if smart metering is going to be delivered in the timescale dictated by the Government, energy businesses must start assessing their options sooner rather than later.

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It is Vertex's view that some energy suppliers will simply miss the legislative window if they cannot identify and evaluate solutions that are already fully integrated into a customer information system. The system must feature the capability and scalability needed to power meaningful pilot programmes in the immediate term. It must also, potentially, be able to deliver a full-scale solution in the medium and longer term.

### How Vertex can help suppliers deliver smart metering – right here, right now

Vertex's experience is at the forefront of the smart metering revolution.

Together with its smart metering specialist partners, Vertex has developed a tried, tested and ready to use solution that features a proven, purpose-designed customer information system at its heart, offering enhanced customer experience and enabling customers to make informed choices on how they use energy.

The company's solution, developed with its partners, fully integrates alto, Vertex's state-of-the-art CIS system. Alto has been developed and refined specifically to meet the needs of utilities in general and energy companies in particular. The application forms a core part of the company's proposition, alongside a highly functional, low cost smart meter and meter data management system. The elements have been put together in one unique package to deliver an industry-ready smart metering package that is available immediately for evaluation, testing and implementation.

Vertex is driven by the spirit of innovation and the electricity of bringing new ideas to life. We have the creative mindset, experience and utility industry know-how to generate unique insights and actionable ideas. We designed alto with energy businesses in mind. The application's flexibility and scalability is an ideal platform on which energy operators can benefit from smart metering functionality right from the start.

Alto is a powerful tool, enabling companies to interact with customers, organise billing and payment collection and manage debt. Its user-friendly intuitive interface is easy to use, cutting training and operating time, improving efficiency, minimising agent error, and maximising customer satisfaction. It delivers the essential elements required by IT decision makers in the industry, including a state-of-the-art customer information system, advanced address searches and intelligent customer and account identification.

### A powerful platform that's easy for agents to use

In particular, when alto was being created, Vertex paid special attention to meeting the operational requirements of the customer agent. Within the context of smart metering, this means that via the meter data collection and monitoring system, the agent is able to seamlessly handle customer move-out instructions, including making a move-out reading or automatically scheduling a reading for the planned move out date. The agent can use alto to:

- automatically de-energise a property
- capture the customer's new address
- summarise and confirm the details of a customer's move-out and move-in date
- ask, where appropriate if they want a smart meter at their new home
- review a customer's current bill
- and confirm and take immediate payment, maximising cash flow for the supplier.

The system also handles the move-in process equally smoothly. The agent is able to re-energise the property, perform a real time credit score on the new tenant, and can switch the smart meter instantaneously to and from pre-payment where appropriate.

Pre-payment customers can pay online, with the transaction seamlessly integrated into the alto interface. All payments made by a prepayment customer are then shown immediately in alto.

From the moment a smart meter is required at a property, the request is shared between alto and the Meter Data Management (MDM) system to schedule the installation. All pertinent information is shared with the field operative, and alto communicates with the MDM system to pick up and connect the new smart meter.

Alto enables an agent to take an easy to review snapshot of an account – ensuring that the energy business is able to manage a customer relationship according to the key metrics and SLAs it has pre-determined.

The solution is also fully expandable, which means that energy providers can consolidate a customer's account into one easy to follow bill. Further services, such as plumbing, heating and retail sales can be added as the supplier develops its smart meter based business model.

Vertex is driven by the spirit of innovation and the electricity of bringing new ideas to life and as a result, designed alto with energy businesses in mind.

## Ready to go - already in use

Nevertheless, within the context of the need for immediate solutions, the value of an impressive specification is only useful to the energy industry if an application like alto is proven in the market. Fortunately, over four million utility customers already benefit from alto's functionality, and this is underpinned by Vertex's acknowledged reputation for smooth, hassle-free configuration, transition, and implementation, in addition to possessing a strong track record in delivering business process solutions for utility clients.

In possessing an integrated solution that meets the immediate smart metering needs of energy businesses, the company recognises that it must also be able to provide customer-facing agents - whether employed by the supplier or sourced from within Vertex's team - with a comprehensive training programme to ensure that they are able deliver a high quality service from day one. Because alto is at the core of the company's smart metering solution, Vertex trainers are experienced in providing appropriate training packages to ensure that this immediacy of skill development is available.

## Working flexibly with the industry

The success of Vertex's proposition to the energy industry will however depend, to a certain extent, on the way in which energy suppliers are ready to accept a partly outsourced solution that utilises a third-party developed application and operating model. The company recognises that historically, many businesses in the sector have preferred to pursue in-house options, but Vertex believes that it can add significant value to an energy company's development strategy at a critical time for the industry.

It has done this, in part, by being ready to make things happen quickly where an energy company has made the introduction of smart metering a high priority. Vertex has created a model office and operational set up, so that an energy business can develop its smart processes in a model office environment that safeguards its 'business as usual' operational processes and systems.

Vertex has also made sure that its approach to commercial arrangements for the introduction of smart metering is highly flexible. The company's platform-agnostic solution can be run as a "Build, Operate, Return" contract in parallel with an existing legacy CIS - giving an energy business the opportunity to meet its smart metering obligations as well as the space to learn from the model office environment. This will allow an energy business the time and focus to develop and implement its next generation applications; once it has done this it can then re-assume overall control of its smart meter processes in a timescale that works.

## Focusing on the customer is the key priority

In summary, energy businesses will need to ensure that their customers - including their current and future, potential customers - are their first priority as they consider the immediate options. It is likely that across the next decade, suppliers will need to create new ways to establish, maintain and enhance their customer relationships, and this prioritisation will be driven by the advent of smart metering. While technological considerations will, in many respects, be key in determining whether an energy business is able to survive and thrive across this period, it is the way in which it achieves this change while focusing on the customer that is going to be vitally important. Fusing together excellent business processes, customer-first CRM strategies, user-friendly technology and proactive communications will be the core watchwords and differentiators as the industry gears up for change.

Vertex is confident that the work it has undertaken to create a ready-to-run smart metering solution will put energy supply partners in an excellent position to benefit fully from the new environment as it takes shape across the next 11 years.

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Enquiries on how smart metering from Vertex could assist your business to take the next step forward should be forwarded to Andy Corkhill at [andy.corkhill@vertex.co.uk](mailto:andy.corkhill@vertex.co.uk)

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