

Smart Metering Prepayment in Great Britain

Making prepaid energy work in
a smart world



Consumer Focus and Accenture
Executive Summary

High performance. Delivered.



Background to smart metering

The Government's vision is for every home and small business in Great Britain to have smart electricity and gas meters by the end of 2019. Domestic consumers also will be offered an in-home energy display (IHD), which will show the customer near real-time information on their energy use.

Smart meters are the next generation of gas and electricity meters with a range of additional functions that will replace existing meters. Compliant smart meters will be able to operate in both credit and prepayment mode. The technology is designed to be a universal solution providing benefits across all customer groups, including both prepaid and post-paid sectors.

The rollout of smart metering is a major national programme, and one of the largest and most complex investment projects undertaken in the energy sector. It is projected to cost approximately £11.5 billion.¹

The Department for Energy and Climate Change (DECC) is responsible for putting in place the regulatory framework that underpins the rollout and for verifying that it is delivered in alignment with consumers' interests. Energy suppliers are responsible for installing the meters and helping consumers to receive the benefits.

Smart meters will be installed in customers' homes through two implementation phases: a) the foundation stage, which began officially in April 2011.² This is a phase in which energy suppliers are free to deploy smart meters with their own infrastructure, and b) mass rollout, which is expected to start in 2014 and be completed in 2019.³ During this second phase, energy suppliers should deploy domestic smart meters using a national and centralised smart metering communications infrastructure.

It is unclear precisely how many meters will be installed in each stage, though at the time of writing, it is estimated that up to 4.7 million meters could be installed prior to the mass rollout.⁴ The Government is setting up a specific Data and Communications Company (DCC) to support the mass rollout.⁵ The principal role of the DCC will be to provide communication services for smart meters at all domestic gas and electricity consumer premises, and to facilitate switching. The DCC also will support communications to small- and medium-size enterprises that have equivalent meters.

Some consumers will receive smart meters during the foundation stage, as energy companies start their programmes and trial new technologies and offerings. The functionality of these meters will vary, but most are expected to address minimum common standards known as the Smart Metering Equipment Technical Specification (SMETS). Companies are expected to comply with the most up-to-date SMETS issued by Government when compliant technology becomes available. The majority of customers are expected to receive their smart meters during mass rollout from 2014 to 2019.



Background to the report

The regulatory framework for smart meter rollout in Great Britain has been under development for a number of years. Consumer Focus, as the statutory watchdog for energy consumers, has been representing customers' interests as part of this process. Accenture, the global management consulting, technology services and outsourcing company, has been involved in supporting a large number of industry parties in this challenge, both in Great Britain and internationally.

Smart metering, as with the introduction of Internet shopping for retail, has the potential to change the market and customers' experience of it. Smart metering offers opportunities to improve customer service and reduce the cost of servicing energy products; it also raises new challenges and risks that need to be addressed. This is particularly the case for prepayment meter customers.

This joint report was born out of a common desire to increase the benefits that can be achieved from smart prepayment for customers, and to seek to understand and address the challenges to their delivery. This is particularly important given that more than 13 percent of consumers use this payment method and this number is expected to rise.⁶ Furthermore a disproportionate number of prepayment meter (PPM) users are on low incomes.⁷

In addition, it was felt there was an information gap related to smart prepayment options. Technical solutions for smart prepayment are not as common as those for the post-paid sector; therefore, fewer reference models exist that can be drawn upon to help deliver benefit to this customer segment.

This report draws together views from a number of key stakeholders. It also includes new and existing qualitative and quantitative research on prepayment. We have been sharing findings from the research with key stakeholders over the last 12 months to help inform timely decision making. For example, key findings were presented to DECC's prepayment workshop in early summer 2012.

This report is not intended to offer definitive solutions. It draws together learning to better understand the customer experience in today's world, and outlines a positive and practical vision as to how customer experience could improve in the future. The report also highlights how this market might develop, key challenges from both a customer and technical perspective, and recommendations to address issues.

This report is not written specifically for international markets, but we believe it raises valuable considerations for those working in energy markets where prepaid offerings are being developed.

We would like to thank all those who participated in the research and shared their knowledge. A list is contained on the last page of the full report.



Executive summary

A notable proportion of customers use prepayment energy and the number has been growing steadily. It is clear that the introduction of smart technologies could offer substantial benefits to customers currently using a PPM, and could generate wider customer interest and choice in prepay energy offerings for customers currently using alternative payment options.

PPM customers arguably have the most to gain from the rollout of smart meters in terms of potential improvements in customer service and greater convenience compared to those using other payment methods. In addition, smart metering could deliver, in the long run, improved competition and innovation in this sector that could lead to a downward pressure on price. There is also an opportunity to address many of the existing day-to-day challenges that this customer group face, such as problems with broken and lost payment devices, barriers to switching supplier and payment method, or misdirected payments.

However, it is also clear there is a real risk that opportunities to deliver benefits may not be realised. Customers could face new problems, a decline in service levels, and an increase in costs if the smart metering solution is not implemented effectively.

A number of technological challenges exist to implementation of prepayment in a wider British market, including:

- Barriers to interoperability due to the current implementation of proprietary metering solutions.

- A lack of agreed industry processes for managing customer switching and prepayment top-ups for smart meters.
- The completion of agreed standards for messages to and from the smart meters, and for encrypting credit top-ups.
- Availability of compliant equipment.
- An agreed industry model for operating prepayment in a competitive market structure.

These barriers should be resolved for manufacturers and service providers to deliver the products and services that the utility companies will need. Likewise, these challenges should be addressed for the utility companies themselves to be able to deliver the solutions required to enable the market to operate effectively and deliver customer benefits.

There are also a number of distinct challenges linked to the early rollout of prepayment offerings, including:

- The transition from the existing prepayment metering solutions to the new smart prepayment offerings within a competitive energy market while standards, processes and solutions are evolving.
- Enabling a seamless transition from the free market foundation stage to the mass rollout, which will be supported by the operation of the centralised DCC.

As yet, DECC has given relatively little consideration to prepayment during the foundation stage and, as such, these problems still remain unresolved.

Obligations on energy suppliers to comply with a challenging installation target (not split by customer segment) are encouraging companies to focus on simpler credit customer installations. In addition, the challenges associated with prepayment and lack of agreed solutions mean that few suppliers are trialing prepay at scale, with the resulting impact that the more challenging prepay issues are not being identified or resolutions sufficiently prioritised. Therefore it is anticipated that prepay customers, as a customer group, will be the last to benefit from the smart meter rollout.

It is particularly important that prepayment customers access the wider benefits that smart technologies can bring as early as possible, as they are less likely to achieve the same energy savings as those customers using other payment methods. However prepayment customers still will be required to contribute to the cost of smart deployment through increased energy bills. DECC's Smart Metering Impact Assessment (IA), for example, estimates that gas PPM customers will achieve average savings of 0.5 percent compared to two percent for gas credit customers.⁸

DECC is relying heavily on competition to deliver the benefits of smart prepay to customers, but the commercial drivers may not always be there to make this happen. Timely action is needed by suppliers, Ofgem and DECC if smart metering is to benefit prepayment customers. It is widely acknowledged by the energy industry that prepayment was not a priority when energy markets were liberalised; it is important that we do not repeat this mistake as we enter into a smart world.

Market analysis

- More than 13 percent of customers in Great Britain pay for their energy by prepayment.⁹ Consumer Focus estimates that 9.6 million people in Great Britain live in homes where they pay for their energy through a PPM.¹⁰
- In Great Britain, the number of energy customers on prepayment has steadily increased—from approximately 6 million to 6.8 million between 2008 and 2011. On average, an estimated 1,724 PPMs are installed every working day.¹¹
- Experience from other markets, such as mobile telecommunications, as well as customer research suggest it is not unrealistic to expect up to one-third of consumers will be on some kind of prepayment offering once smart meters have been rolled out.
- There are also likely to be a range of new managed credit products introduced that involves the customer using a combination of credit and prepayment.¹²
- Smart metering has the potential to address many of the existing barriers to customer interest in prepayment and emerging technology will facilitate the introduction of a range of new offers. Suppliers are expected to encourage customers to pay up front for energy due to the rising cost of debt resulting from unpaid energy bills. There is also a global trend toward increasing pay-as-you-go products across all sectors.
- While not all PPM users in Great Britain are from vulnerable groups, they remain disproportionately on low incomes compared to those using other payment types. The introduction of smart prepay tariffs that are competitively priced and make it more convenient to top-up has the potential to increase the uptake of prepayment energy tariffs beyond existing customer demographics, including more affluent groups.
- At the time of writing, there are 11 prepayment offers available in the British market. These include standard prepay offers, affinity products with organisations such as Age UK, programmes for supermarket reward points or free carbon monoxide detectors, and advanced meters with separate keypad displays. By contrast, there are 63 monthly direct debit deals and 39 quarterly cash cheque tariffs currently available.¹³
- If a consumer is unable or unwilling to pay by direct debit or via the Internet, this drastically reduces the range and variety of tariffs available. It also reduces the savings that can be made. For example, out of the 283 fixed, capped or discounted tariffs released by suppliers between January 2009 and February 2012, 100 percent were available to direct debit customers and 38 percent to people paying by quarterly cash or cheque (i.e., pay on receipt of bill). In contrast, only 3.2 percent of these tariffs were available to PPM consumers. The rollout of smart metering could result in increased innovation and choice of prepay tariffs.¹⁴ However, this will be dependent in part on how tariffs are regulated.

The customer experience

Consumers who use PPMs generally value this payment method. A 2012 Consumer Focus survey found that 81 percent of customers using prepayment were either very or quite satisfied with it. In particular, they liked the control that prepayment offers, helping them to budget and reducing the worry about receiving bills that could push them into debt.¹⁵ However, PPM customers also point out disadvantages and face distinct problems that smart metering could address. The main disadvantages prepayment customers face today include the following.

Higher cost tariffs

Prepayment remains one of the most expensive payment methods along with cash and cheque. Dual fuel PPM customers pay on average £85 more per year than those paying by direct debit. Single gas PPM customers pay £43 more per year on average than direct debit customers.¹⁶ This additional amount is largely attributed to the extra costs associated with installing a PPM, servicing the meters and maintaining a separate infrastructure. However, the lack of effective competition and innovation in this market, as identified by Ofgem, has arguably compounded the problem as there has been little incentive for suppliers to streamline processes, improve efficiencies and introduce new technology. Customers generally have to pay by cash to top-up. If they incur ATM withdrawal charges, this can add to their overall energy costs.¹⁷

Self-disconnection

Risk of disconnection is cited as a key disadvantage of PPMs by both users and non-users. Consumer Focus research found that approximately 16 percent of PPM users self-disconnect at least once per year. The frequency of self-disconnection¹⁸ varied substantially, with five percent self-disconnecting regularly (at least three times a month), three percent occasionally (six to twelve times in the last year) and eight percent only rarely (once or twice in the last year). The main reasons for self-disconnection are not realising the meter was low on credit, insufficient money available at the time, and simply forgetting or not getting round to topping-up.¹⁹ The introduction of universal credit, including the move from weekly to monthly payment of benefits, may influence the frequency and length of disconnection for customers on low incomes.²⁰

Issues associated with PPM settings

The single largest reason for calls to frontline advice agency Consumer Direct (now Citizen's Advice Consumer Service) about prepayment (46 percent) are problems or queries about tariff settings, such as incorrect tariff rates or debt repayment levels.²¹ It often can be hard for suppliers to identify if there is a genuine problem, and where appropriate to resolve issues, without visiting the property. This can be time consuming, inconvenient and costly for both the customer and the supplier.

Inconvenience caused by the top-up process

Typically consumers can only buy energy at a shop or outlet and have to top-up the meter manually by inserting a key or card. This can be inconvenient and result in accidental self-disconnection (e.g., if top-up outlets are closed or the person cannot leave the house to make the payment). Physically accessing the meter can be difficult if the meter is in a hard to reach location, such as outside the property or behind furniture. Although the majority of the larger British energy suppliers offer a no-disconnect policy at night, and some offer friendly credit during public holidays, this is only available for electricity PPMs and not for gas. This credit also depends on the model of the meter.

Problems with payment devices

Customers need a key or card to add credit to their meter. These devices are frequently lost, broken or stolen, resulting in customer inconvenience, additional cost and sometimes self-disconnection. Problems with faulty, lost or stolen payment devices accounted for approximately one-quarter of the calls to the Consumer Direct helpline about prepayment during the period from October 2011 to March 2012.²² A further one in 10 calls about PPMs came from customers experiencing a delay in receiving a replacement device, half of which were without supply. British Gas reports that in 2011 it issued more than 600,000 replacement cards/keys for electricity and gas.²³

Misdirected payments

Under the current system, there is no real-time validation carried out when customers credit their electricity key in a shop or outlet to check they are using the correct key. Therefore, it is possible for customers to top-up their meter using a previous tenant's payment device or an old energy supplier's card. While customers still are able to credit their meter and keep the energy on, this can result in problems. For example, a customer could be paying the wrong tariff rate and the payment could end up going to the wrong supplier. Some suppliers will issue customers a retrospective bill if they realise there is a shortfall when they come to reconcile the account on the meter. This can be both unexpected and problematic for the customer. About one in 10 calls to Consumer Direct regarding PPMs were about misdirected payments.²⁴

Unallocated payments

Under the current process, if customers use an electricity key provided by the wrong supplier, the situation can arise where that payment is not allocated to any supplier. Anecdotal reports from the Master Registration Agreement (MRA) Development Board suggest that there are currently £28 million of electricity unallocated payments in prepayment metering infrastructure provider (PPMIP) interest-free bank accounts. These are payments made by customers that the PPMIPs have been unable to allocate to a supplier. Although customers have had the benefit of the electricity, the cash has not been passed to the current supplier and the money is held by the PPMIP until the Electricity Central Online Enquiry Service (ECOES) data is corrected to enable the transaction to be routed to the correct supplier. As with misdirected payments, some suppliers will issue customers a retrospective bill. The £28 million black hole caused by this inefficiency is ultimately paid for by customers.²⁵

Lack of information/engagement

Prepayment customers often can feel neglected by their suppliers. These customers have expressed concerns that they do not understand how to use prepayment, the purpose of standing charges and how they are deducted, or what happens with emergency credit and how it works in practice. Some prepayment customers also do not understand who their supplier is and how to contact them, how much debt is being paid off, or how much they still owe. In addition, there are related problems with the usability of PPMs, with customers finding it hard to access and input key information into the physical meter. For example, on selected Quantum gas PPMs the consumer has to press a button more than 30 times to access account information. Consumer Focus' qualitative research found that none of the customers interviewed were aware that this information was available on their meter.²⁶

Challenges when switching supplier

At the time of writing this report, prepayment customers appear to be switching suppliers in comparable numbers to other payment types.²⁷ However, they face some issues. Prepayment customers are more likely to encounter problems with the switching process. They have relatively poor tariff choices compared to customers using other payment methods, and they may find it harder to switch or believe they cannot switch if they have a debt.²⁸ Finally, prepayment customers have fewer tools to help them find the appropriate deal. For instance, not all price comparison sites include all PPM deals, and even fewer enable a physical switch to occur online due to restrictions placed by energy suppliers.

Barriers to switching payment method

Customers can face barriers when trying to switch from prepayment to cheaper post-paid options, such as direct debit. The need to have a meter exchanged when switching payment method can be inconvenient if the customer has to stay home or take time off work. It also can result in a loss of income when the customer is paid by the hour. Most suppliers charge for a meter exchange if the customer wants to switch from prepayment to credit unless it is no longer safe or practicable for the customer to use. Costs for the switch typically range from £45 to £60.²⁹ Companies also may require a security deposit if the customer wants to switch to post-paid options. For some suppliers this is a default requirement; for others it depends on the customer's credit or payment history. Typical deposit sums are in the range of £150 to £200.³⁰ While these are often refunded after a period of time, not all customers can afford this kind of up front cost.

Incompatibility with micro-generation

Electricity PPMs are not compatible with micro-generation. If customers run out of credit and self-disconnect their main electricity supply, but have solar panels or a wind turbine that they could be using to generate electricity, they will not be able to do so, and will therefore remain off supply. Similarly, any feed-in tariff payments they could have earned while off supply will not be credited to their account, even if the micro-generation is able to produce energy at that time. In addition, under the current process, rather than credit from electricity generation immediately being added to the meter, which could help to prevent disconnection, customers have to wait for a separate payment from their energy company (e.g., via cheque, which they then have to add to their meter via the usual top-up process).

The potential benefits of smart prepayment solutions

The rollout of smart metering has the potential to address many of the problems faced by PPM customers, improving customer service and reducing the relative cost of prepayment tariffs. If the appropriate solutions and regulatory framework are put in place, it is possible that there will be the following benefits.

More competitively priced tariffs

If all smart meters have prepayment functionality built in, costs to serve should decrease as separate meters and a completely separate infrastructure will no longer be required. In addition, there should be savings from increased efficiencies, such as a reduction in misdirected or unallocated payments, reduced home visits, and an end to costs associated with payment devices as these will no longer be needed. Increased choice and innovation in prepay offerings, which appeal to a wider cross section of consumers, could improve competition in this market and further drive down prices. Assuming cost savings are passed on to customers, this should result in prepay tariffs being relatively cheaper when compared to other payment types.

Easier and quicker resolution of problems

When errors occur or customers believe that their meter settings are configured incorrectly, remote diagnostics should make it quicker and easier to identify and resolve problems. They will reduce the need for the customer to visit the vending outlet, or for the supplier and customer to incur the time and cost of a home visit.

Greater choice and convenience when topping up

New technology can facilitate a range of innovative top-up options, including crediting the meter via a text message, smart phone application or phone call, as well as through an online or in-home display. In addition to the current cash-only option, customers could pay by debit or credit card at payment outlets. Such functionality should provide greater customer choice and convenience, and help to reduce accidental self-disconnection that results when householders are unable to get to a payment outlet or access cash.

An end to problems caused by payment devices

Smart meters should be able to receive credit top-up messages remotely, without the need for the customer to insert a physical payment device into the meter. This should end customer problems associated with lost, stolen or faulty cards and keys. The only information customers will need to top-up their meters is a unique number associated with their energy supply and meter, which can be provided on a card or by other media.

Reduction in misdirected and unallocated payments

Smart metering will enable real-time validation of the customer's payment against supplier information, thereby removing the likelihood of payments being attributed to the wrong supplier or not allocated to any supplier.

Reduced barriers to switching between payment methods

If full commercial and technical interoperability are achieved, customers would be able to switch to and from prepay immediately without the cost and inconvenience of a meter exchange. There also will be less justification for suppliers to require a security deposit on change of payment method if they are able to monitor daily energy consumption or offer managed credit tariffs to prevent debt build-up.

A reduction in self-disconnection

Smart metering facilitates a range of actions that could help prevent self-disconnection caused in error rather than due to financial problems:

- It is technically possible to offer friendly credit or no-disconnect periods for gas and electricity. These are periods when customers remain on supply even if their emergency credit runs out and they have no money on the meter.
- Remote top-up options reduce the likelihood of disconnection arising from payment outlets being closed, customers being unable to get to a top-up point, and faulty, lost, or stolen devices.



- In-home displays placed in a convenient location could offer low credit alerts to warn the customer when they are in danger of self-disconnecting. Many meters have this functionality but customers do not hear the warnings as the meters are located out of earshot (e.g., outside the property or in a cupboard under the stairs).
- The smart metering installation visit also provides a proactive opportunity to identify and relocate PPMs that are inconvenient to access, and, where appropriate, offer customers alternative ways of paying for their energy.³¹
- Real-time and more granular data available from smart metering will make it possible for suppliers to offer services that help customer budget and prevent disconnection. For example, some energy companies are trialing sending low credit warnings to customers' mobile phones. This service is valuable particularly when customers have been out of the house, and do not realise that their credit has expired or is low.

New ways to help tackle self-disconnection

Remote access to data and the ability to credit meters remotely could make it easier for suppliers to identify customers who are regularly disconnecting. It could also help suppliers to provide support more quickly for those customers who are off supply or at risk of self-disconnecting. In the long-term, if load limiting is implemented, as an alternative to self-disconnection for prepay customers only, customers could be offered a 'life-line of energy' (a trickle flow) that might allow them limited use of essential appliances, such as lights and the refrigerator, as an alternative to complete self-disconnection. This policy would not be acceptable if it resulted in a weakening of existing protections.

New opportunities to improve customer engagement

The smart meter installation visit provides a key opportunity for suppliers to engage with customers and start to plug the information gap that currently exists. Well-designed in-home displays also could confirm easier access to useful PPM information while new meters could be designed with improved usability. With customers' consent, suppliers could send text, online, mobile or email messages to displays or where the customer tops-up. Energy companies report that the relative transience of prepayment customers can make it hard to build up a relationship with this segment. Smart metering provides new opportunities for companies to interact with this customer group.

Challenges and new risks of smart prepayment

There is a real risk that the opportunities to deliver benefits will be missed, service will decline and customers will face new problems. There are also a number of distinct challenges linked to early rollout within the context of a supplier-led model, the transition from the foundation stage to mass rollout, and regarding the tail end of installations. The following are some of the main risks identified with a more detailed list of issues included within the report.

Increased costs leading to more expensive tariffs

There is a risk that the technological solutions selected by suppliers and Government could increase the cost of serving a prepayment customer. For example, the provision of enhanced in-home displays specifically for prepaid customers or the hard wiring of solutions to confirm reliable top-up could add costs that would be passed on to customers. Similarly in the foundation stage, before the DCC becomes operational, the interim infrastructure and back-office systems needed to facilitate interoperability are likely to add cost and/or deter suppliers from rolling out smart meters to prepay customers. For an unknown number of years, suppliers will need to support both smart and standard prepayment infrastructure. Little consideration has been given to how much this will cost or where these costs will fall.

Topping up options raise equality issues

Increased use of debit or credit card payments to top-up may increase costs compared to cash-only payments. It is

unclear how significant any variation in cost might be. Suppliers also may decide to charge a variable amount per top-up depending on the payment method. The impact of this policy is unclear. However, since low income customers tend to credit their meter regularly with smaller amounts, this could hit the poorest PPM customers the hardest.

Lack of interoperability

Full interoperability will not be in place until the DCC is operational in 2014 at the earliest. Before this date, most smart prepayment customers who switch suppliers will in practice have their meter replaced unless a short-term, interoperable solution is implemented. In addition, if advanced domestic meters (ADM), which are non-compliant devices, or SMETS version 1-compliant meters are not adopted by the DCC, it is unclear if customers will lose smart functionality when changing suppliers or continue to have to change their meter, even after the foundation stage. Addressing interoperability is particularly important as failure to do so could result in increased customer inconvenience, barriers to switching suppliers, additional waste and higher costs for consumers. The challenges, including the risk of stranded assets, also have acted as a disincentive for some suppliers to trial smart prepayment at scale.

Decline in reliability and quality of service

Smart prepayment will be dependent on remote functionality, the DCC infrastructure and suppliers' selected solutions. Failed vends could occur for a number of new reasons. For

example, communications failure could result from maintenance upgrades, bad weather, peaks in demand, power cuts or communication hub breaks. Steps need to be taken to verify that customers still can easily top-up when problems arise, otherwise an increased number of customers could be left off supply. If inadequate solutions are selected, there is also the potential that the customer will have to wait longer in the shop for payment confirmation than they do today—potentially causing inconvenience for them and the shop keeper. In today's world, the customer can top-up immediately when they return home; in a smart world, particularly during the foundation stage, it may take longer. For instance, in one of supplier's trial,³² it took up to 30 minutes for a payment to register on the customer's electricity meter and up to 45 minutes on a gas meter, depending on when the meter was last activated.

Solutions to address misdirected and unallocated payments leave customers off supply

In today's world, if customers take the wrong payment device to their vending outlet, the top-up can often still be made and customers still have access to energy. In a smart world, real-time validation of customers against their supplier and supply point (customer premise) is likely to take place. This could mean that if customers have the wrong number, the payment will either be rejected at the point of sale or customers could top-up the wrong meter. In both instances customers could be left without supply.



Remote switching to prepayment

The ability to switch customers remotely from post-paid to prepaid removes the necessity for energy companies to visit a customer's home to switch the meter. The home visit currently acts as an important consumer safeguard to check that prepayment is appropriate for the customer. It allows for a face-to-face demonstration of how to use the meter and serves as an important information exchange point. The home visit also provides a final opportunity for the supplier to discuss alternative payment options.³³ New protections have been introduced to help address these concerns and prevent the misuse of remote functionality. This is a combination of voluntary codes, guidance and formal licence conditions.

Meter location and usability

All smart electricity meters, operating in prepayment mode, will require an intervention by the customer when

manual top-up is required and also for arming the meter to reconnect where the meter has been off supply (e.g., possibly following a change of tenancy). Since prepaid functionality will be ubiquitous to all meters, the meter location arguably will be important for all, not just prepay customers. Currently, during the physical installation of a PPM, the installer should verify that the meter is installed in a convenient and safe location to support customer interaction. In a smart world, the customer can be switched remotely to prepayment without the need for a meter exchange. It is therefore harder to check that the meter is in a safe and reasonably practicable location for the customer to use.

Consumer engagement

Verifying consumer engagement and the changes in behaviour needed to deliver the benefits of smart metering in a cost-efficient way is challenging. But it is likely to be particularly so for PPM customers given the current information

gap. Consumer Focus research, conducted in April 2012, suggests that this group of consumers are less likely to have heard of smart meters (35 percent compared to 52 percent) but slightly more likely to be interested in smart metering than those paying by direct debit (52 percent versus 45 percent).³⁴ More research is needed in this area, as are engagement strategies and consumer proposition pilots.

Incompatibility with microgeneration

SMETS-compliant smart meters do not fully integrate with micro-generation. This is not yet a widespread concern, but is likely to increase in significance given the promotion of Green Deal, the Energy Company Obligation and other low-carbon initiatives. There are solutions to address these issues, but these have not yet been considered.

Recommendations and key principles

The Government has committed to placing consumers at the heart of the decision-making process. But for this to happen in practice for PPM users, DECC should develop a shared vision for what is to be achieved, as well as a strategy and road map to deliver it. Greater focus is needed on the customer experience during the foundation stage in particular. We recommend that the following principles inform any decisions taken by Government and industry with regards to smart meter rollout.

1. Smart meters should deliver benefits to all PPM customers.

Any loss of service in a smart world will be considered unacceptable by consumer groups, resulting in the risk of disengagement and consumer backlash.

2. Actively seek to tackle and solve the problems that PPM customers face today to deliver improvements both pre- and post-DCC.

Current levels of service should not be a benchmark for success. To deliver this principle, the following steps will be needed:

- Minimum standards set out in SMETS should verify that smart meters and displays increase the benefits to prepayment customers. Appropriate research should be carried out to identify what information and services would be valued. The opportunity should be taken to address usability problems with meters and confirm in-home displays are ready for prepayment.
- Suppliers should offer functionality, such as friendly credit and low credit alerts on in-home displays, to deliver benefits. Availability of the functionality in the smart metering equipment is not a guarantee it will be offered to customers.
- The Smart Metering Installation Code of Practice (SMICOP) should verify that installers properly demonstrate how the smart metering system works and how customers can get the most from the pay-as-you-go market. Installers should be appropriately trained to give advice and demonstrate the system in prepayment mode. A particular focus should be put on areas where there currently is customer confusion, for example around standing charges and any debt repayments. Suppliers should increase opportunities to engage prepayment customers before, during and after installation.
- During the smart meter installation, the opportunity should be taken to relocate meters that are in inaccessible locations, where it is cost effective to do so, even where the customer is not currently on prepayment. This is particularly the case for demographics that may be likely to go onto prepaid or some form of managed credit tariff in the future.
- Industry interoperability issues should be addressed, such that any prepayment customer utilising smart (ADM or SMETS 1) devices is not penalised and can benefit from all smart prepayment benefits irrespective of which company supplies their energy.



3. It is essential that any potential new problems are minimised.

- It is recommended that the Smart Programme maps the potential scenarios relating to failed vends and failed top-ups in particular, and clearly understands the customer impact in each instance. The customer journey to resolution should be simple and timely with the problem preferably resolved at the point of vend.
- Suppliers should offer a 24-hour helpline to customers, free from mobile phones as well as landlines. This is especially important for scenarios in which the customer could be off supply.
- Ofgem and DECC should proactively engage with energy suppliers to understand their proposed approaches and consider setting new guaranteed standards of service around top-up speeds, failed vends and payment confirmation as appropriate.
- Leading practices should be shared between parties to confirm that an appropriate industry solution to problems is implemented.
- DECC should take the lead on the development of an interoperability solution for prepayment customers during the foundation stage in line with the interoperable solutions proposed for credit customers.
- Ofgem should proactively monitor the effectiveness of new licence conditions on effective switching to confirm they are working in practice.
- End-to-end testing should be carried out prior to rollout, and testing and monitoring undertaken on an ongoing and proactive basis.

4. Seek to remove barriers that exist and facilitate the transition from prepayment to a genuine pay-as-you-go market.

This will include providing a smooth transition from the existing Quantum and key meter solution to new smart prepayment solutions by agreeing on appropriate standards, industry processes and market structures. Technological options are outlined in detail in the main report.

5. Verify that PPM customers are not the last to receive new technology and access the associated advantages.

DECC's monitoring and reporting framework should track the installation of smart meters by payment type and take action if needed. The services offered should be monitored and leading practices shared.

6. Aim to reduce the costs to serve of PPM customers, be cost efficient and verify that cost savings are passed on to customers.

As part of this:

- DECC's impact assessment on smart metering should be revised to focus more on prepayment, including the costs of confirming interoperability during the foundation stage, and estimated transition costs resulting from running both standard and smart systems.
- Government's proposed public annual report should clearly outline the costs and benefits delivered to PPM customers from rollout.

- The customer should not be forced to pay for costly technological solutions that make prepayment safe and reasonably practicable to use. For example, the cost of hardwiring a display should not be passed on to the individual customer. In the case of customers struggling to pay, this would only add to their debt and hardship while for others there are fairness considerations. Any protections around the moving of the PPM will require updating to recognise that costs may not just involve the moving of the meter, but other solutions, such as a key pad or an advanced in-home or hardwired display.

7. Verify that the poorest and most vulnerable PPM customers are not disadvantaged, and that steps are taken to improve their experience and prevent self-disconnection.

As part of this:

- Suppliers should offer the full range of services that smart meters can facilitate to help prevent self-disconnection and to identify and target proactively the proper assistance for prepaid customers in financial difficulties.
- SMICOP should require installers to be trained appropriately to identify and record vulnerability, and to use the home visit to check that prepayment is still safe and reasonably practicable for the customer. Installers also should be required during every home visit to check and record in an appropriate manner, on a relevant shared database, the meter location in such a way that this can be used when assessing a customer's suitability for prepay in the future alongside other indicators.



- The distributional impact of innovations, in particular the cost of topping-up via different media and using different payment options (e.g., credit, debit or cash) needs consideration. Ofgem should set expectations in this area to verify that low income customers are not disadvantaged. Consumer Focus welcomes protections recently introduced that will confirm cash payment continues to be an option for customers.

8. Prepayment remains a choice for as many customers as possible both pre- and post-DCC.

It is not appropriate for suppliers to move customers onto post-paid options that result in debt build-up while WAN service is not available.

9. Verify that the existing safeguards for prepayment remain for smart prepaid customers.

Ofgem already has introduced new protections around remote switching to prepayment and load limiting, which are welcome improvements. The effectiveness of these protections will need monitoring. This should include an evaluation of the effectiveness of the information that is provided to customers prior to and after switching, as well as how much notification is being given when the customer is being forced onto prepay. Guidance on what is safe and reasonably practicable should be kept under review in light of technological developments. Existing safeguards, such as local availability of payment outlets, should be retained at least in the medium term.³⁵

Any proposals should be measured against these high-level objectives and initial recommendations implemented. At every stage in the decision-making process, the step-by-step customer journey should be assessed. The strategy needs to consider the transition from the foundation stage to mass rollout and the experience of users before the DCC goes live. Smart meter rollout should not detract or delay suppliers from taking action now as there are many non-smart specific improvements that could be made.³⁶ Further recommendations are outlined within the main report.

One area not addressed within this report is prepayment within the microbusiness sector. Consumer Focus recommends that further work is undertaken to identify and address issues in this area.

References

- ¹ "Smart meter rollout for the domestic sector (GB): Impact Assessment," Department of Energy & Climate Change, Aug 2011, www.decc.gov.uk.
- ² "Charles Hendry speech to the Smart Metering Forum," Department of Energy & Climate Change, 30 Nov 2011, www.decc.gov.uk.
- ³ Smart Meters, Department of Energy & Climate Change, www.decc.gov.uk.
- ⁴ Based on figures provided by suppliers (September 2012). These are rough estimates and include a number of assumptions such as meter availability. Figures do not include small suppliers.
- ⁵ Smart Meters, Department of Energy & Climate Change, www.decc.gov.uk.
- ⁶ "Promoting smarter energy markets," Ofgem, Dec 2011, www.ofgem.gov.uk, P.23 paragraph 3.48. Direct debit is the most popular payment method used by 49 percent of domestic customers. Around 33 percent pay by standard credit and 13 percent use prepayment.
- ⁷ "Energy Supply Probe - Initial Findings Report," Ofgem, Oct 2008, www.ofgem.gov.uk.
- ⁸ "Smart meter rollout for the domestic sector (GB): Impact Assessment," Department of Energy & Climate Change, Aug 2011, www.decc.gov.uk.
- ⁹ "Promoting smarter energy markets," Ofgem, Dec 2011, www.ofgem.gov.uk, P.23 paragraph 3.48. Direct debit is the most popular payment method used by 49 percent of domestic customers. Around 33 percent pay by standard credit and 13 percent use prepayment.
- ¹⁰ Based on 4.1 million electricity PPM customers and average (mean household) size (persons per household) of 2.35. Consumer Focus research showed that the majority of PPM households paid for both gas and electricity via a PPM; "Cutting back, cutting down, cutting off," Consumer Focus, July 2010, www.consumerfocus.org.uk; "Domestic suppliers' quarterly debt and disconnections: Quarter 3 2011," Ofgem, Feb 2011, www.ofgem.gov.uk; "General Lifestyle Survey, 2010," UK Office of National Statistics, Mar 2012, www.ons.gov.uk.
- ¹¹ Ibid.
- ¹² We expect to see a range of other offerings such as managed credit, where the customer is given a maximum credit limit, which will use the prepayment smart meter technical architecture and related infrastructure.
- ¹³ Energylinx price comparison, 2012. Available online at: www.energylinx.co.uk.
- ¹⁴ Ibid.
- ¹⁵ Face-to-face Omnibus survey carried out by GfK NOP on behalf of Consumer Focus. GfK spoke to 299 adults who have a PPM between 29 March – 3 April 2012.
- ¹⁶ Consumer Focus pricing information 23 Jan 2013. Calculations are based on dual fuel medium user (16,500kwh gas, 3,300kwh electricity), suppliers standard tariff, UK average across all regions.
- ¹⁷ "Energy Supply Probe - Initial Findings Report," Ofgem, Oct 2008, www.ofgem.gov.uk; p. 96 Ofgem noted "The cost data provided to us by suppliers shows a wide range of operating costs per account, with the cost per account of the highest cost supplier around 90 percent higher than those of the lowest - a difference of around £20 per account per year, or about 4 percent of a dual fuel bill. Once again, this evidence is not consistent with an effectively competitive market, where we would have expected such material cost differences to have been competed away." For example, to date there has arguably been less commercial incentive for suppliers to compete for PPM customers when they tend to be disproportionately on low incomes and relatively high debt risk. Similarly there can be few drivers to improve customer service when many consumers are effectively locked into their supplier due to high debts, or locked into their payment method, due to the high cost of security deposits should they wish to switch.

¹⁸ Self-disconnection is defined as interruption to electricity or gas supply by consumers using PPMs due to failure to credit the meter.

¹⁹ "Cutting back, cutting down, cutting off," Consumer Focus, July 2010, www.consumerfocus.org.uk.

²⁰ Universal Credit, UK Department for Work and Pensions, www.dwp.gov.uk.

²¹ Data from Consumer Direct for the period 1 October 2011 to 30 March 2012.

²² Ibid.

²³ Personal communication with British Gas representative, 2012, www.britishgas.co.uk.

²⁴ Contacts to Consumer Direct: October 2011 – 30th March 2012. Out of a total 1336 contacts about prepayment, 118 were about misdirected payments.

²⁵ All unallocated and misdirected payments emanate from MRA MAP 14/ECOES processes. A misdirected payment is where the information held on ECOES is incorrect and the money is sent to the wrong supplier. Unallocated payments emanate from where the information in ECOES conflicts with the information on the key; e.g., meter number not found, duplicate meter numbers, etc. Of the £28 million total we understand that £17 million are payments made more than two years ago. Under a process due to be put in place under the MRA, suppliers are expected to receive a percentage of unallocated funds, in accordance with a formula based on market share. Consumer Focus has written to the larger suppliers to request that they donate an equivalent sum to customers in financial difficulty.

²⁶ "Cutting back, cutting down, cutting off," Consumer Focus, July 2010, www.consumerfocus.org.uk.

²⁷ Sixteen percent of PPM customers have switched or tried to switch supplier in the last 12 months. This is similar to direct debit and more than quarterly cash cheque customer payment groups; Consumer Focus Survey of 4954 people carried out in March 2012 by TNS RI.

²⁸ "Proposed debt assignment protocol for prepayment customers," Ofgem, 2012, www.ofgem.gov.uk.

²⁹ Information Request to Suppliers, Consumer Focus, 2012.

³⁰ Ibid.

³¹ This is in line with Supply Licence Condition 28.1A which states that: "Where it becomes apparent that the reason for self-disconnection is that it is not safe and reasonably practicable for the customer to use a PPM, then the supplier should make alternative arrangements."

³² Information Request to Suppliers, Consumer Focus, 2012.

³³ "Consumer Focus response to the Spring Package – Addressing consumer protection issues," Consumer Focus, April 2011, www.consumerfocus.org.uk.

³⁴ Face-to-face Omnibus survey carried out by GfK NOP on behalf of Consumer Focus. GfK spoke to 1959 adults between 29 March – 3 April 2012.

³⁵ Ibid.

³⁶ "Making progress: An analysis of improvements made by energy companies for their prepayment customers," Consumer Focus, Jul 2012, www.consumerfocus.org.uk. This report, details improvements the six major energy suppliers have made to their processes for dealing with vulnerable prepayment customers. This report identifies the extent to which the energy suppliers have implemented 'five key principles' as set out by Consumer Focus for prepayment meter (PPM) customers. The principles aim to confirm customers in vulnerable circumstances are not disadvantaged, and avoid circumstances can lead to detrimental self-rationing and in severe circumstances, self-disconnection.

About Consumer Focus

Consumer Focus is the statutory consumer champion for England, Wales, Scotland and (for postal consumers) Northern Ireland.

We operate across the whole of the economy, persuading businesses, public services and policy-makers to put consumers at the heart of what they do.

Consumer Focus tackles the issues that matter to consumers, and aims to give people a stronger voice. We don't just draw attention to problems. We work with consumers and with a range of organisations to champion creative solutions that make a difference to consumers' lives.

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