

## Smart prepayment and fuel poverty

## Research Summary

**This research investigates how growth in the use of smart prepayment meters may affect fuel poverty amongst consumers with conventional prepayment meters (PPM). Our modelling indicates that lower PPM tariffs, expected to accompany smart PPMs, could bring around 180,000 households out of fuel poverty. This is without assuming any behavioural change. Consumers who have switched from a conventional PPM to a smart PPM appreciate easier top-up and balance-checking functions. However, consumers are less sure on how they could be using in-home display (IHD) functions to help them better manage their energy consumption. Suppliers need to develop improved energy efficiency advice as part of the rollout of smart PPMs.**

### Background

In 2014, 17% of all electricity accounts and 15% of all gas accounts were paid for through a PPM. Prepayment tariffs are typically far higher than credit or direct debit tariffs, but are mainly used by low income consumers. Prepayment consumers are also more likely to have other markers of vulnerability including: low or no qualifications; disabled; single parent; carer; living in rented accommodation.

The research was undertaken whilst the Competitions and Markets Authority (CMA) investigated the energy market, including looking at the particular disadvantages experienced by PPM consumers, particularly relating to switching suppliers and access to competitive tariffs. The Competitions and Markets Authority (CMA) recently confirmed an interim PPM price cap for 2017-2020 to bring PPM annual bills down to a level comparable with direct debit bills.

The smart metering rollout will see all households in Britain being offered a smart meter with an IHD. This will provide households with more accurate information on their energy consumption. For prepay consumers, smart PPMs also offer easier top up and credit balance checking. And by using functions offered by their IHD, prepay consumers should find it easier to keep track of their energy usage, so they can avoid the 'heat or eat' dilemma too frequently faced by fuel poor households.

### Research aims and methodology

The research aimed to investigate the scale of smart PPM rollout and how suppliers are marketing smart prepay, including to conventional PPM consumers. It sought to understand the likely quantitative effect of smart PPM rollout for fuel poverty nationally and at household level. It also sought to understand the experiences of consumers who have switched to smart PPM.

The research methods used were:

- Desk analysis of reports and statistics and informational interviews to gain understanding of the emergent smart PPM sector;
- Quantitative modelling to forecast the impact of smart PPM on fuel poverty, using assumptions applied to a nationally representative sample of households;
- Qualitative quasi-experimental research with 30 'conventional to smart PPM' switchers: a test group (n=15) received a home visit (interview, followed by interactive session looking at use of their IHD), with a follow-up phone call a few weeks later; and a control group (n=15) who received a phone call only
- A further three case study home visits with smart PPM consumers, which included exploration of their use of their IHD and/or their proprietary app; and
- Experimental analysis of a small set of smart PPM customer consumption data to explore the potential for understanding changes in consumption.

## Findings

### The emerging smart PPM market

Early smart PPM rollout is unevenly distributed, with Utilita, Ovo and British Gas at the forefront, with E.ON and Utility Warehouse also installing growing numbers of smart PPMs. Marketing to date of smart prepay has almost exclusively focused on conventional PPM consumers. Suppliers' future marketing strategies for smart PPM remain under wraps.

The CMA's interim price cap is likely to be highly influential on the pace and strategy for smart PPM marketing. It should see all PPM (conventional and smart) tariffs lowered from January 2017. The higher specification 'SMETS 2' meters, which will offer improved ability to switch suppliers or tariff type for PPM consumers, are exempt from the price cap.

This is intended to encourage suppliers to advance the pace of the SMETS 2 rollout.

### Modelled effects on fuel poverty

More competitive smart PPM tariffs could bring an estimated 180,000 households out of fuel poverty, where 90% of conventional PPM consumers switch to smart PPM tariffs equivalent to direct debit tariffs. Despite a number of households remaining in fuel poverty after switching from conventional PPM to smart PPM, many households are predicted to experience a reduction in their fuel poverty gap, with the average fuel poverty gap (in the same scenario) reduced from £449 to £341.

Since the CMA's proposed PPM price cap (2017 – 2020) will apply to conventional and smart (but not SMETS 2) meters, in practice, the effect of the cap is likely to be the more important initial driver of this tariff-reduction benefit for fuel poor households than is the switch to smart PPM.

With the rollout of SMETS 2, the comparative costs of prepay and credit tariffs and the improved ability to switch to more competitive tariffs will become more important in shaping the ability of consumers to move out of fuel poverty. The modelling undertaken for this study did not factor in changes in customer behaviour affecting their ability to reduce consumption and so save money. Such positive customer behaviour changes are intended outcomes of the smart meter programme.

### Household experiences of smart PPM

The qualitative research explored householder experiences of using smart PPMs and IHDs (or apps) to change their energy behaviour.

Smart PPM consumers predominantly used their IHD to monitor their credit balance and check messages rather than to check historic or real-time usage. Less than half the

participants, prior to receiving a home visit, had explored other information screens on their IHD, such as screens showing historic usage. The number of participants reporting use of the history screen increased from six to eleven (out of fifteen) following a home visit. One reported this screen as particularly useful:

*“Yeah, that’s [history screen] the function I use the most I reckon. I like to break it down over a week and see what my cost is and if I’m within my target.... I like to try and keep tabs of what I’m using and to budget really.”*

Target setting, setting credit alerts and the visual display of live energy use were also notably under-used functions prior to the home visit. Following the visit, there was increased use of these functions, with some having set daily targets during or following the home visit.

A third of all participants (n=30) reported reduced electricity costs since switching to smart PPM, with reasons including a cheaper tariff and increased awareness of energy use, leading to efforts to reduce energy use. These efforts included more economical use of energy-hungry appliances, turning appliances off standby more frequently and changing their heating practices. Participants did not recall being provided with energy efficiency guidance on use of their IHD during its installation.

Participants reported reduced anxiety as a benefit of their smart PPM, including worrying less about running out of credit because they were able to top up online or over the phone at home or when they are away. The ability to use so called ‘friendly credit’ without being charged any extra was particularly valued by those with children.

The proprietary apps used by case study participants did not offer real-time energy use, making them unsuitable for checking baseload

or appliance costing. This supports the government requirement for domestic smart meter installations that any proprietary app should be additional to, not instead of, the offer of an IHD.

### **Discussion and Recommendations**

This research provides evidence in support of the government’s requirement that suppliers provide a genuine offer of an IHD with all smart meters and for any other proprietary device or app to be offered as additional, not as an alternative to the IHD.

It also provides evidence in support of the importance of the smart meter installation code of practice (SMICoP) minimum standards, particularly the sections on ‘Demonstrating the System to the Customer’ and ‘Provision of Energy Efficiency Guidance’ for prepayment consumers.

The installation process is a key opportunity for delivery of information and advice to help PPM consumers get the most from smart metering - and from their IHD as a helpful tool - to reduce energy waste and manage their fuel bills. Recommendations are focused around this process.

### OFGEM

- Request material evidence of compliance with SMICoP minimum standards, in particular on ‘Demonstrating the System to the Customer’ and ‘Provision of Energy Efficiency Guidance’. OFGEM should satisfy itself that for prepayment consumers, energy efficiency guidance is not being skipped over to fit in time to demonstrate the prepayment functions.
- Request suppliers to review and report on prepayment customer feedback regarding energy efficiency advice and prepayment functions;
- Encourage supplier-led trials of ‘beyond the minimum standards’ energy efficiency advice to smart PPM consumers.

### Department for Business, Energy and Industrial Strategy (BEIS)

- Work with OFGEM to identify where suppliers need to be pushed harder and held to account as part of the smart meter rollout towards reducing fuel poverty.

### Smart Energy GB

- Develop campaign materials aimed at smart PPM consumers that promote awareness of the use of IHDs as helpful tools to reduce and manage energy use as well as more convenient top up and credit-checking.

### Energy UK

- Support and co-ordinate efforts by suppliers to fulfil SMICoP minimum standards, particularly 'Demonstrating the System to the Customer' and 'Provision of Energy Efficiency Guidance' for their prepayment consumers.
- Encourage suppliers in their development of a smart PPM 'pre-installation to post-installation' customer engagement strategy to enable vulnerable and fuel poor PPM consumers to realise the benefits of smart metering as fully as possible.

### Energy suppliers

- Develop a smart PPM 'pre-installation to post-installation' customer engagement strategy.

### *Pre installation*

- Produce videos to communicate how consumers can use their IHD to achieve energy demand reduction and budgeting activities as well as prepayment functions.

### *During installation*

- Installers carry tablet-type devices for consumers to view videos or tutorials which:

- prepare consumers (including all energy users in home) for their use of different functions on the IHD;
- help consumers to think about their energy practices and where they could reduce energy waste; and
- encourage consumers to ask the installer questions and play with the display themselves.

### *Post-installation*

- Design and implement a year-round programme of post-install energy efficiency messages delivered via the messaging function on their displays.
- Frame energy advice to PPM consumers as helping to encourage healthy energy choices.
- Offer a phone top-up registration service for consumers who want to top up by phone but don't have internet access.
- Resource and support community-based advice, such as local trained energy champions to support consumers.

### **Project outputs**

The full project report and executive summary can be downloaded at:

<http://www.eagacharitabletrust.org/understanding-the-impact-of-smart-prepayment-on-fuel-poverty/>

or

<https://www.cse.org.uk/downloads/file/smart-prepayment-and-fuel-poverty-oct2016.pdf>

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