

Consumer Bulletin

Getting smart – preparing for change

This Bulletin focuses on several pieces of Ofgem's work concerning consumer protection, smart metering and understanding behaviour change.

The roll out of smart metering has the potential to transform how energy markets operate; how consumers engage with them and help consumers to manage their energy use better. In preparing for this process of change, Ofgem has been working to understand consumer behaviour and considering the support and protections consumers may require.

Consumer protection for early adopters

The national, mandated, roll-out of smart metering by energy suppliers will start in 2014. Government is currently developing the requirements for the roll out. Ahead of this some suppliers are already rolling out smart meters. Ofgem is working to ensure early adopters of smart metering are sufficiently protected.



Energy UK

Smart metering enables remote switching between credit and prepayment mode and allows remote disconnection. With this in mind, we are working to ensure consumers, particularly the vulnerable, continue to have the necessary protections in place. These plans were set out in our 'Spring Package' in February 2011. Since then, we have worked with consumer groups, suppliers and others to develop our plans. We have now issued a formal statutory consultation to introduce the package of protections which includes:

- Modifying supplier licences to ensure that customers who want to top-up a Prepayment Meter by cash can continue to do so – even if they have a smart meter installed;

- The establishment of a compensation scheme run by each of the six major suppliers for customers disconnected in error;
- Establishing guidance to help suppliers identify signs of vulnerability in a household where a supplier is considering disconnection for unpaid charges.
- Establishing guidance to help suppliers identify circumstances where it is safe and practicable for a customer to be switched to (or to continue using) a Prepayment Meter.

Pending the statutory consultation process, we will implement these protections by the end of the summer. Maintaining consumers' rights to

switch supplier when they have a smart meter is also important and we will run a separate consultation on this issue in the summer.

We have been monitoring the activities of suppliers installing smart meters now to highlight potential issues. We aim to ensure that consumers' rights are being upheld where smart meters are used to access energy usage data, and to ensure that consumers are being well informed about their rights where energy usage data is concerned.

British Gas has taken steps to improve its processes recently – and we will seek similar improvements from any supplier where issues become apparent in this area.

The Energy Demand Research Project (EDRP)

The EDRP was a major suite of trials carried out in Great Britain to investigate consumers' responses to improved feedback on their energy use. The trials were launched in July 2007 and were managed by Ofgem on behalf of DECC. Government provided £9.75m towards the trials which was match-funded by the participating suppliers. The final analysis of the trials has now been published at www.ofgem.gov.uk

Findings from the trials

Over 61,000 domestic energy consumers took part in the trials. The interventions trialled, alone or in various different combinations, were:

- Energy efficiency advice
- Historic energy consumption information
- Benchmarking consumption against comparable households
- Customer engagement using targets or commitments to reduce consumption
- Smart electricity and gas meters
- Real-time displays
- Improved control of heating and hot water
- Financial incentives (including variable tariffs) to reduce or shift energy use
- Consumption information on the web or TV

EDRP provides valuable new insight into consumer engagement and behaviour change.

18,000 homes received smart meters. Trials using smart meters were more successful with larger energy savings. Savings from smart meters depend on providing consumers with appropriate additional information and measures.

The combination of smart meters and real-time displays consistently resulted in savings of around 3% (with a full range of 0 – 11%). The mains powered real-time displays which displayed gas and electricity consumption and tended to have more sophisticated functions, were preferred.

Some trials reported problems with consumers understanding the new equipment provided, which related to

the design of the equipment and the need for sufficient explanation of how and why to use the equipment.

With the exception of two trials there was no significant reduction in energy consumption for those interventions that did not include a smart meter.

The impact of advice; and bills showing comparisons with previous consumption, varied across the trials. Advice provided in combination with a smart meter led to savings of up to 5%.

Two suppliers offered time of use tariffs. They were successful in shifting peak use by up to 10%. The effect was stronger in smaller households of 1 or 2 people and at weekends than week days. One of the trials was seen as complex and had less of an impact. No



overall reduction in consumption was seen from time of use tariffs.

Financial incentives to reduce use had a very short-term, if any, effect on consumption. Commitment to reduce consumption and information on the web or TV were not successful in reducing consumption. Nevertheless, these measures may be able to help consumers save energy if implemented differently and/or for certain customer groups.

The EDRP findings suggest that a package of measures will have the most impact on consumer's consumption, ie smart meters, real-time displays and advice. The details of delivery and the content and format of the technology and information are key to successful behaviour change.

Helping consumers manage their energy

From these trials we can develop a set of high-level principles to guide the planning and delivery of the consumer experience as part of the smart meter roll out.

- In order to prompt behaviour change, **consumers need to know what to do** ie what means should be deployed to save energy.
- **Quality matters.** Information needs to be clear, easily seen amongst other material sent by suppliers (eg it may not be effective on a bill) and presented in an attractive way. It also needs to be relevant and timely (eg appropriate to the season) and kept up to date.
- **Quantity also matters.** Regular small nuggets of information appear to be more effective than a single delivery of comprehensive information (to provide information in manageable amounts and to maintain behaviour change prompts over an extended period).
- **People and households are not all the same.** The more closely an intervention can be tailored to particular households or individuals, the more effective it is likely to be.

Overall, the EDRP shows us that new technology can help us relay consumption information to consumers in new and useful ways. However, technology alone is unlikely to achieve

engagement and behaviour change without relevant support and information for different types of consumers.

EDRP	Project partners
Project sponsor	Department of Energy and Climate Change
Project manager	Ofgem
Final analysis	Aecom consortium
Advisor, data collection and processing	Centre for Sustainable Energy
Advisor	Energy Institute, University College London
Ran and match-funded the trials	EDF Energy, E.ON, SSE and Scottish Power
Suppliers' statistical teams	The University of Sussex, De Montfort University, The University of Reading

How have the findings been derived?

The final analysis of the EDRP brings together a vast range of information including

- Consumption data from smart and non smart meters
- 'Meta data' (eg information on how participants were recruited and the quality and format of the interventions)
- Consumer surveys
- Practical and technical experiences
- Wider academic literature of other trials.

A legacy from the EDRP is the large and unique database of consumption data. DECC plans to make this data available to academics and others who wish to do further analysis. For further information contact DECC¹.



¹Contact DECC on 0300 060 4000 or correspondence@decc.gsi.gov.uk

Consumer First Panel



Views on: data privacy aspects of smart metering

Ofgem's Consumer Panel is made up of 100 consumers recruited from locations across Great Britain to act as the 'voice of the consumer'. At the latest session the Panellists provided views on the data privacy aspects of smart meters, having previously discussed the introduction of smart meters and how they thought the smart meter installation programme should work.

Views on: attitudes to suppliers holding personal details

Overall, in comparing the energy industry, Panellists do not have any greater or less trust with regard to their treatment of personal data than other industries such as mobile phone companies or supermarkets.

Panellists are generally aware that some types of personal data are held by suppliers and understand that this is needed to allow them to provide a service.

When considering additional details which could be held about them, such as household characteristics or energy use, some Panellists think there may be some benefit to suppliers

having these details to help select appropriate tariffs. Others think this was too much information to share.

Views on: how sharing information will change with smart meters

With smart meters, Panellists generally assume that a greater amount of information would be held, particularly more accurate consumption data.

They think sharing this information would generally be beneficial, ensuring more accurate bills and helping energy companies provide more tailored energy efficiency information which could help households save money. Some consider it could benefit the energy industry and Government more widely, to help manage supply and demand on a national level.

When asked about the frequency of the consumption data that should be shared – on a daily, half hourly or every 10 second basis – Panellists feel that the more frequently the information was shared the more useful it would be in achieving the benefits. This could allow suppliers to advise on time of use tariffs

based on when appliances are switched on.

Some Panellists, however, consider that data every 10 seconds, for example, could be excessive and would give too great an insight on what is happening within the home.

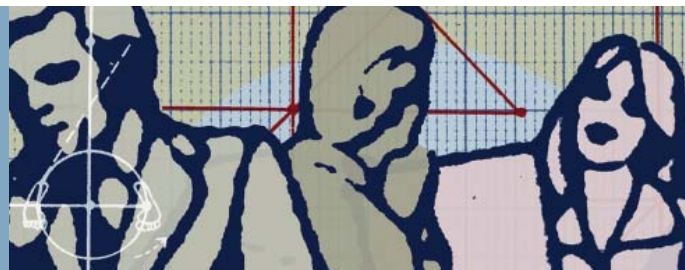
Views on: information sharing with different bodies

While there could be benefits to sharing information with third parties such as energy efficiency advice organisations, a key concern is whether it should be shared more widely with commercial organisations and that this could lead to unwanted sales calls.

Panellists want control over how their data would be shared with third parties and are keen for an 'opt-in' approach on sharing their information, to decide what is shared with whom. Panellists are clear that sensitive data such as bank details should not be shared with third parties.

Overall, the research suggested that effective consumer communication on data privacy could focus to alleviate concerns:

- Consumers want control over how their data is shared with third parties,
- Data should only be used by suppliers to help consumers become more energy efficient, and
- The systems should be subject to strict governance and security.



Ofgem will continue to work with DECC on these issues to ensure that consumer interests, and any competition implications of data privacy arrangements, are taken on board.