

## 2013 EPRG Public Opinion Survey:

### Smart Energy – Attitudes and Behaviours

EPRG Working Paper 1327

Cambridge Working Paper in Economics 1352

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We present the results from our 2013 public opinion survey on smart metering and consumption behaviour, conducted on our behalf by YouGov of 1526 adults in Great Britain. The results indicate that smarter devices do lead to behavioural response but the challenge is to sustain this behaviour change over time. Of the smart meter householders, around 40% reported checking their monitors less frequently than when it was first installed compared to just 16% who had improved their monitoring behaviour.

Applications on smart phones are promising to raise consumption awareness and induce behaviour change. Around 64% of respondents that use smart phones believed that having an application on their smart phones could make them more aware of their energy consumption. However, the major concerns about this proposed application are the cost and its flexibility/ease of use. Around 33% of respondents who perceived increasing awareness through the use of application on smart phones to be beneficial would want such application only if it is free or cheap, whereas 7% would accept it only if its usage requires no extra effort.

Economic benefits are the main drivers of consumption behaviour change. Peer effects were not found to have a strong impact on behaviour. The shares of individuals citing cost savings and concern about climate change as the motives for deliberately changing their energy consumption behaviour are approximately 87% and 26% respectively. Only 5% of the respondents have consciously changed their energy use because of the installation of new technology such as smart meters or

electricity monitors. Just 2% of respondents have changed their behaviour due to pressure from friends, neighbours and/or work colleagues.

Change in energy use varies significantly by education, housing status, responsibility for bill payments, and age: respondents holding bachelor degree or higher, homeowners and those who are responsible for the settlement of their electricity bills and older respondents are more likely to have consciously changed their consumption behaviour. Furthermore, the reasons for behaviour change vary significantly by respondents' characteristics. Younger respondents and those that are not responsible for energy bills are less likely to offer economic reasons for their changes in energy consumption and are more likely to claim climate change as the reason for behaviour change. Although, younger respondents are more likely than older people to claim environmental concerns, they are still more likely to cite economic than environmental considerations.

Respondents who do not have a bachelor degree are less likely to have changed their energy use behaviour due to environmental concerns. While income does not play a significant role in citing economic reasons for behaviour change, low income respondents are less likely to have changed their energy use due to environmental concerns. Similarly, respondents who self-identified as supporting the Labour Party are more likely than Conservatives to list environmental reasons for their behaviour change.

Since economic reasons are the main drivers of behaviour change, smart technologies may be a promising way of promoting consumption behaviour change if they are economically designed and incentive compatible. Also, the variation in the reasons for behaviour change suggests energy saving awareness programmes directed at younger people should not only focus on economic gains, but on environmental benefits as well.

Switching behaviour has declined relative to previous studies, and there have been shifts in the distribution patterns of the reasons for switching suppliers. Only 42% of respondents switched energy providers in the five years prior to this study. By contrast, the switching rates in the previous EPRG surveys were 48% in 2006, 48% in 2008, and 47% in 2010. Share of respondents that have changed providers because of the opportunity to get lower tariffs elsewhere has decreased to 78% from its peak of 84% in 2006. However, respondents choosing capped prices as a reason for switching suppliers have further increased to 38% from its highest share of 30% in 2008.

There is potential scope for shifting discretionary electricity loads off-peaks, through the use of smart appliances that require limited user intervention. However, the potential that appliances might not be available when they are needed and privacy

are major concerns. Acceptance of supplier control of smart appliances is high, even for small discounts on the electricity bill. We find little indication that gender, age, or housing type impact willingness to accept a discount in exchange for the ability of supplier to remotely control appliance usage. However, concerns about smart technology especially as it affects the availability and functionality of the appliances, and privacy, significantly affect respondents' acceptance. This finding suggests that remote controlled appliances must minimise impact on availability and functionality, and privacy concerns must be taken seriously in order to increase consumer adoption.

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Publication	November 2013
Financial Support	EPSRC Institutional Grant