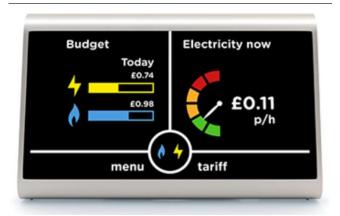


Policy Brief: Communicating the potential and limitations of smart meters

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Despite the industry promises of improved grid management and reduced carbon emissions, the research on metering provides conflicting evidence with regards to its effectiveness. Metering can have a positive impact on resource efficiency provided that it improves the management of the grid and leads to changes at the household level (e.g., decrease in consumption, purchase of smart equipment, change in social norms) (Bradley et al., 2016; Buchanan et al., 2015). Therefore, the success of the UK Smart Metering Implementation Programme is highly contingent on successful communication strategy.

Context This document reports on a study involving analysis of smart meters marketing materials and two focus groups utility professionals across private, charity and public sectors. The aim of the project was to understand the shortcomings in the current marketing materials and enhance the potential for transparent, clear and effective communication. The research was conducted in Bristol between July 2017-February 2018 and coordinated by the researchers from the University of the West of England.

Current marketing materials

Promotional materials assume convenience, savings and control over utility bills thanks to metering. However, focus groups revealed paradoxes contained in these framings as the

participants associated metering with the loss of control over private data, inconvenience during the installation process, and lack of financial gains if customers' lifestyles cannot support "smart" decisions. Participants agreed that the current promotional materials do not reflect advanced functionalities of smart meters, e.g. opportunity to re-design energy tariffs or community scale demand-side response: "Unless you're using it to inform decision making then it's not smart, then it's just measuring stuff".

Enhancing future communication

Combining a range of arguments (e.g. benefits to the individual, the country, the environment) and communication styles (e.g. informational and promotional) could result in the honest and transparent disclosure about the limits and the potential benefits of metering. Future communications should be tailored to the capabilities and values of energy users.

Need for energy justice Future energy policies should be guided by the imperatives of climate change mitigation and tackling fuel poverty. While smart meters could make energy grid more efficient, the technology alone does not guarantee that all users will benefit from it the same way. Participants emphasised that the energy market is diverse and requires varied approaches: "One of the ways to look at it, that markets. there are two there's early adopter market and what we call vulnerable households in the industry". They called for recognising that not all user have the capability to change their lifestyles and behaviours, e.g. due to illness, shift work pattern or short-term renting contracts. Therefore, smart meters implementation should programme he accompanied by further energy justice "support package", e.g. thermal imaging surveys, retrofits, piloting smart appliances vulnerable in households.

Mutual learning across the sectors

Finally, the project created a novel space for engagement among the government officials, academics, community energy members, energy companies and water providers. Although water and energy meters occupy different policy areas, both are fundamentally concerned with the same issues of resource management, improved efficiency, and fair provision. The study concludes that further collaboration and data sharing between utility companies, academic researchers, and the government will help to create a space for integrated decision-making.

This policy brief is based on the research done at the University of the West of England, Bristol by Aleksandra Michalec, Prof Enda Hayes and Prof James Longhurst in collaboration with Bristol Energy Network. Please email <u>Aleksandra.michalec@uwe.ac.uk</u> for more information.

You can find the full version of the paper in the peer-reviewed journal Utilities Policy: Michalec et al. (2019) "Enhancing the communication potential of smart metering for energy and water", vol 56; pp. 33-40.

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