

## 17: Home energy displays

### What are home energy displays?

Home energy displays are part of the Smart Meter Rollout. This rollout will be spread over two stages; a Foundation Stage which began in April 2011, essentially a testing phase, and the mass rollout due to start in early 2014. Energy suppliers will be responsible the installation of the appropriate metering by 2019 and an in-home energy display. This home energy display will provide feedback to a building's occupants regarding both their electricity and gas consumption.

One recent study verified the link between user engagement with feedback displays and reductions in energy consumption. Here, initial energy savings of 7.8% were reported by van Dam, Bakker and van Hal (2010) in a large-scale study of in home energy displays in the Netherlands. However, these savings were not maintained in the medium to long-term.

Although historical data has proven useful in reducing energy consumption, a more proactive strategy was thought to be the use of predictive information (Sauer, Wastel & Schmienk, 2009). Predictive information anticipates future consumption and provides this to the user based on their current rate of consumption. According to DECC the average consumer (with both electricity and gas) will save around £23 per year on their energy bill as a result of improvements in feedback through these displays. Basic versions will be provided to homes for free however more advanced displays retail for between £50 and £115.

Nicola Combe, YEPG, August 2012

### Key Issues

- Home energy displays can energy savings of between 5-15%
- The home energy display and the smart meter are often confused, the smart meter feeds data to the home energy display and isn't designed for users to interact with
- In the UK these displays should cover electrical & gas consumption
- Each home in the UK should receive a home energy display for free under the Smart Meter Rollout by 2020
- Feedback should be colourful, meaningful and clear to help users save energy
- 20% of the UK adult population struggle with basic numeracy and literacy, engaging with concepts such as energy may be problematic and not result in the savings anticipated

### Web Links

- [Exploring consumer preferences for home energy display functionality, Centre for Sustainable Energy](#)
- [Energy Monitor Reviews, Which?](#)
- [Home Energy Displays, Roth & Brodrick \(2008\)](#)
- [Home Efficiency and Smart Metering: Smart energy - now it's personal. P.Beart, Founder Director, AlertMe](#)
- van Dam, S.S., Bakker, A.C. & van Hal, J. D. M., 2010, [Home Energy Monitors: impacts over the medium term, Building Research and Information](#), 38(5), pp. 458-469:
- Sauer, J., Wastel, D.G. & Schmeink, C., 2009, [Designing for the home: A comparative study of support aids for central heating systems, Applied Ergonomics](#), 40, pp. 165-174: