SMART METERS - SMARTER PRACTICES

Appendix 2 – Energy use & financial implications



Governments, States and individuals should be able to make fully informed decisions on Smart Metering issues related to their true costs, as determined by Cost Benefit Analyses (CBAs) that take into account issues raised in this present review document. 'Willful blindness' (or access to incomplete facts) is not a sustainable option.

The type of Smart Metering system proposed may greatly determine its likelihood of success or failure. Safeguards also have to be put in place to address public and scientific concerns.

It is already contested by some researchers whether consumers and nations will make worthwhile savings with the Smart Metering systems *presently* proposed by many utilities.

A 12-month study by Hargreaves (2011), undertaken in dwellings where monitors displaying electricity use had previously been installed demonstrated that the initial enthusiasm towards energy saving measures with the monitors soon wore off. In some homes their use was abandoned, whilst in others they caused rows over energy consumption between partners or parents and teenagers.

"Rather than feeling motivated to save more energy and money householders were left feeling frustrated and despondent that the changes they could make were very small and they were receiving little or no meaningful support from anywhere else, such as government and local authorities.' Hargreaves (2010).

Dr Hargreaves claims the current UK decision to rollout Smart Meters has been hastily arrived at, without sufficient evidence on their likely impact, and that key opportunities may be being missed by the process being rushed.

"SmartMeters represent a high-cost, high-tech approach where a less expensive and more expansive one will do. The best way to address global warming 'and higher electric bills' is already available, and it is called conservation" (Hawiger 2010).

Conservation

Many measures do not require the benefits of Smart Meters and smart technology <u>only</u> Common Sense. Among the simple measures that can be adopted are:

- Proper insulation of homes and offices.
- Switching off lights* and equipment in empty rooms and corridors.
- Creating ways to bring natural light deeper into buildings reducing daytime need for artificial lighting and energy use.
- Getting up earlier when it is light reducing need for artificial light.
- Avoiding having appliances on standby.
- Ensuring heaters, air-conditioning and boilers are energy efficient.
- Energy efficient appliances.
- Use of appliances powered manually or from free energy.
- Keep heating thermostats at 19 °C (66.2 °F) or less.
- Wearing more clothes indoors when cold so less heating required.

- Opening windows and doors for increased ventilation on hot days instead of using air-conditioning or electric fans.

- Switching off equipment when not in use and avoiding using standby mode when not in use (as this still consumes energy).

- Boiling only the water required when using kettles.

- Using less bathwater when bathing, or ideally, having short showers.

- Line drying clothes instead of using a tumble drier.

Through proper education of the general public, <u>substantial</u> energy savings can be achieved even <u>without</u> the introduction of smart grids - and at far lower risk than is being created by many rollouts.

It is necessary to optimise smart grid design whilst promoting such measures and taking into account the true needs of the consumer.

*The replacement of traditional incandescent lighting with compact fluorescent bulbs (CFLs) is frowned upon in some circles because of potential health and environmental risks (Oliver 2008).

References

Hargreaves, T. (2011), When practices strike back...: a longitudinal study of the impact of smart energy monitors on domestic energy-use practices. Presentation at the Royal Geographical Society (with IBG) annual International Conference, London. 2nd September 2011. Media release.

Hawiger, M. (2010), Energy savings can be achieved without PG&E's disasterous SmartMeter devices, http://turn.org/article.php?id=918

Oliver, R. (2008), Understanding flourescent light bulbs, EcoSolutions, http://edition.cnn.com/2008/TECH/07/27/eco.flourescent/