

Providing energy monitoring equipment to groups/ individuals

Summary of project/activity

SEACS partners in Devon and Dorset issued energy monitoring equipment to households so that they could monitor and record their energy consumption.



Objectives of the project

- To give households tools for them to become more aware of their energy consumption
- To help households understand their monitored energy consumption relative to available national energy benchmarks
- To inspire households to reduce their energy consumption through energy reduction competitions
- To understand how households react to monitoring, recording and sharing their energy consumption

Methodology/approach

361 Energy in Devon issued households with free remote whole house electricity, plug in and showertime monitors and asked households to provide monthly electricity consumption data. In addition, remote controlled plugs were also issued. The monitoring equipment was issued as part of a wider project which offered each household tailored

support to identify options to reduce their energy consumption which also included the option of a free energy assessment (EPC or Green Deal Assessment), behavioural advice, energy clinics and a regular newsletter giving people information and advice.

In Dorset, 40 whole-house electricity monitors were purchased from British Gas. They were selected as the transmitter unit (which clips over the electricity supply cable) is small and connects wirelessly to the display unit without the need to follow a set-up procedure to enable the 2 units to communicate.

The electricity display monitors were given out free at SEACS energy awareness events on the condition that an e mail address was supplied to enable a follow-up questionnaire to be sent out later.

At the same time 3 short video films were uploaded onto the SEACS website featuring local households who had previous experience of using electricity monitors. The householders (members of Transition Town Dorchester) explained the energy saving changes they had made, in order to inspire people who had borrowed the electricity monitors. In addition, the energy saving information leaflets customised for SEACS by the Centre for Sustainable Energy were made available as handouts at the energy events.

Tools used, including those to reach target groups

- Cable clip Efergy Classic energy monitor
- British Gas whole house electricity monitors
- Green Energy Options Solo electricity monitors (with data logging facility)
- Showertime monitors
- Plug-in energy monitors
- Remote controlled plugs (4 plugs with 1 remote control)
- Video films featuring local households using electricity monitors

How was the project managed?

In Devon, the project was managed and delivered by a community group, 361 Energy.

In Dorset the project was managed by the Dorset County Council SEACS community Energy Ambassador with support from volunteers, including Transition Town Dorchester and the Purbeck Environmental Action Team (PEAT)

Who were the project partners?

Devon -361 Energy and Devon County Council

Dorset- Dorset County Council, Transition Town Dorchester, Purbeck Environmental Action Team, Ali Cameron Social Enterprises (video film production)

How was it financed and much did the project cost?

Prices for energy monitoring equipment vary.

361 Energy's package cost £50/pack (Cable clip Efergy Classic energy, Showertime monitors and Remote controlled plugs). Volunteers provided their time to administer the programme.

Dorset County Council purchased the electricity monitors at a cost of approximately £35 each

Funding for the equipment came from the SEACS project.



What were the lessons learned from the project?

This is a summary of the lessons learned across the 2 local authorities:

- Energy monitoring equipment can be a very useful tool to raise a households awareness about their energy consumption

- Some households struggled to set up their equipment which meant volunteers spent a significant amount of time doing this for them.
- The experience in Dorset was that the electricity monitors tested could not differentiate between electricity flow into a house and electricity exported to the grid from solar PV panels on the roof of a property, i.e. electricity exported is shown as electricity consumed. Therefore electricity monitors are not reliable for properties with solar PV installations.
- Running a competition whereby households need to send monthly energy consumption readings can be require significant volunteer resources. Households don't always provide data even if a prize is being offered, but responded well to using monitors in their homes.
- The electricity monitors were useful to identify base loads and therefore identify any opportunities for no-cost energy reductions. For example, it was possible to identify appliances left on standby when retiring to bed at night.
- Imeasure is a useful tool to help collate monitoring data both for a project and a household
- Dorset also piloted the use of a Green Energy Options Solo electricity monitor in community buildings. This monitor has a real time display but also a data logging facility and SD card to store electricity use data at 15-minute intervals. This can be useful as part of a village hall energy audit or to size a solar PV installation to maximise on-site use of solar electricity.

Contact for further information. Links to website information

Dorset- SEACS videos demonstrating electricity monitors:

<http://www.youtube.com/watch?v=nTZDr-bPyUU#t=33>

<http://www.youtube.com/watch?v=sb1r4MBnyd8>

National links -

<http://www.moneysavingexpert.com/deals/free-cheap-energy-monitors>

<http://www.imeasure.org.uk/>

Case Study:

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www.seacs.info