

APPENDIX III

INNOVATION PROGRAMME Leicester – Climate Change Rental Package

Introduction

Leicester City Council (population 280,000, area 7,300 hectares) won funding from the Energy Saving Trust's Innovation Programme to explore the feasibility of developing a Climate Change Rental Package.

High capital cost for sustainable energy installations has been a barrier to take-up of technology. This scheme would overcome this barrier by offering a package of sustainable energy measures for householders, funded at least in part through a leasing or loan arrangement. The income stream resulting from rental payments or loan repayments could then be reinvested in other properties thereby enabling more households to benefit from the finance. It was also anticipated that a package such as this could potentially open up the solar market beyond the 'green' consumer and potentially be used to alleviate fuel poverty.

Aim & objectives

The aim of the feasibility study was to investigate the viability of a sustainable energy rental market.

Aims included:

- Assessing which measures are most suitable for financing through a rental arrangement and which would be better suited to a loan arrangement;
- Calculating potential carbon and cost savings from a package of measures.

From the Council's perspective, a scheme such as this would contribute to the targets set out in Leicester's Climate Change and Energy Strategies.

Who was involved?

Leicester City Council led the project, with the Council's Energy Group facilitating the partnership, providing expertise to other project partners and writing up the feasibility study.

De Montfort University's Institute of Energy & Sustainable Development was a key partner in the feasibility study, with responsibility for integrating ideas from the project into the Leicester Climate Change strategy.

Should the project proceed to implementation, the following would also be key partners:

- Leicester Energy Agency were a key partner, using its contacts in the energy industry to facilitate financing for the implementation of the scheme. Interest in such a scheme was shown by several contacts and sponsorship is being sought to move the project forward.
- Leicester & Northamptonshire Energy Efficiency Advice Centre would be responsible for providing information and advice on sustainable energy in the domestic sector. **The EEAC played an important role in the study by providing information on current provisions of information, advice and other assistance for the domestic sector.**
- East Midlands Community Renewables Initiative would be responsible for disseminating the ideas throughout the region.
- **Continued funding will be sought in order to expand the scheme to the point of self financing.**

The approach

The feasibility study focused on assessing the pros and cons of offering leases versus loans, and also establishing which measures could be paid for through a rental/leasing scheme or loan. When measures are paid through a lease, they remain the property of the scheme operator, whereas when paid for through a loan, they immediately become the property of the client.

This means that the client is in debt when paying off a loan, but not when renting or leasing measures. It is often thought that debt can act as a barrier to uptake of a loan, especially among low-income groups.

The element of ownership of solar panels by the scheme operator rather than the client is key to the operation of the scheme since it overcomes perceived technical and psychological barriers. Ownership by the client would create these barriers since the client would feel they were taking on a long term responsibility for an unknown technology.

Measures funded under leasing arrangements must be removable if payments are not maintained. So, for example, this method of payment would not be suitable for loft or cavity wall insulation, boilers, heating controls etc. However, it would be suitable for solar water heating systems, PV panels, or CHP plants.

The study also established a 'hierarchy' of implementation, with energy efficiency improvements being installed before any solar items, from which three potential 'packages' were put forward as examples which customers could select under the scheme.

Energy efficiency package

Most energy efficiency measures have a payback period of less than 5 years, which means that a zero interest loan for these measures could be paid off within this time. Payback periods for the more expensive measures can be reduced by combining them in a package, with short payback measures effectively 'subsidising' those with longer paybacks. For example, using this approach, the payback for cavity wall insulation can be reduced from around 4 to 2 years. Monthly payments over 18 months for a package comprising CFLs and cavity wall insulation would comprise approximately £16.

Solar thermal package

Most solar thermal measures have a payback period of more than 40 years, which would require a loan of a similar length; not something that either householders or an administering agent are likely to want to take-on. Again, payback can be reduced by 'subsidising' from other measures, e.g. bringing the payback for a solar package down from 40 years to 7. Monthly repayments (over 6.6 years) for a package comprising a solar water heating system, CFLs, loft, cavity, hot water tank and pipe insulation plus a condensing boiler and controls would equate to just under £50.

Photovoltaic package

Photovoltaics typically have a payback of more than 30 years. 'Subsidising' can reduce this to around 16 years which may make it an attractive proposition for the fuel rich, but is unlikely to be appropriate for the fuel poor. Monthly repayments over 16 years for a package comprising a £12,000 photovoltaic panel plus CFLs, loft, cavity, hot water tank and pipe insulation plus condensing boiler, heating controls and A rated fridge freezer, would equate to just under £70.

When viewed as monthly payments, it becomes clear that the Energy Efficiency Package is affordable to most households while the solar thermal and photovoltaic packages are unlikely to be affordable to households in fuel poverty.

Providing Solar technologies to the Fuel Poor

Solar technologies can be made available to Fuel Poor households if the solar repayments are treated as rents while the energy efficiency element is treated as a loan.

Monthly payments for the solar element are reduced when the rents paid for solar installations are based on actual heat used, as measured through a heat meter. This means that the rental payments are spread over a longer period of time than the energy efficiency loan payments but since ownership of the solar element remains with the scheme operator there is no perception of debt on the part of the client and the overall package imposes no net cost on the client.

Results

The project demonstrated that integrating energy efficiency with solar energy as a package provides a more cost effective method of investment than installing solar measures alone. The

approach represents an opportunity to use existing funding regimes to maximise energy and carbon savings in relation to investment as well as breaking down the major barriers to uptake of measures. This methodology would lend itself to domestic and business sectors as well as the public sector.

The study concluded that the Climate Change Rental Package represents an opportunity to begin to move towards a more systematic approach to fuel poverty alleviation and climate change mitigation through the use of recycled funds.

Next steps

As a result of the feasibility work a business plan has been drawn up for the energy efficiency aspect of the scheme which forms the basis of a bid for EST Innovation Programme implementation funding. This bid has been successful and will be delivered over the next two years.

Lessons learned

The key issue is that even with a proven methodology it is difficult to secure 'kick start' funding for a scheme. Utility funding is also more likely once a new scheme such as this is up and running and proved viable.

The major benefit of the scheme is that it removes the barrier of initial capital outlay for measures by passing the responsibility from the householder to the scheme operator. This would allow the currently latent market demand for solar measures to be tapped into since the major barrier to implementation has been removed.

Further information

Richard Holmes, Energy Officer, Leicester City Council's Energy Management Group, 2-4 Market Place South, Leicester LE1 5HB, T: 0116 299 5131, F: 0116 299 5137, E: holmr001@leicester.gov.uk