
THE BENEFITS OF COMMUNITY BASED ENERGY EFFICIENCY PROJECTS:

Report to the Energy Efficiency Partnership for Homes

CAG Consultants, March 2004



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1. Introduction

EST, on behalf of the Environment and Community Group of the Energy Efficiency Partnership for Homes has commissioned CAG Consultants to undertake independent research with the aim of establishing the benefits of adopting a community based approach to energy issues. The research has been undertaken in two phases.

Phase 1 was completed in December 2003. The Phase 1 report provided an outline of existing research on community energy projects, established a definition of what is meant by a 'Community-Based Sustainable Energy Project (CSEP)' and set out a classification matrix to enable the great variety of community based energy projects to be categorised (Appendix 1). The main elements of the Phase 1 research are summarised within this report.

Using the methodological framework developed in Phase 1, this report looks in greater depth at individual community sustainable energy projects. The specific elements of this second phase of the research have been to:

a. Conduct a detailed appraisal of six community sustainable energy projects from across the UK

Through background research and discussion with the EST, six projects that are either ongoing or recently completed were selected for detailed analysis. The six projects were chosen on the basis that they are:

- Operating in a variety of communities (both in terms of geographical location and socio-economic characteristics)
- Seeking to address a wide range of energy and non-energy needs
- Of significantly different scales and structures

For each project the aim was to ascertain the energy and non-energy benefits that they have delivered. It was also hoped that the selection of projects that are distinct and diverse in nature would help identify the broader issues facing community sustainable energy projects and determine whether there are general benefits that arise from adopting a community based approach, or common barriers to work in this field.

The six projects selected for detailed appraisal were:

- **Aberdeenshire Energy Advice Project (AEAP)** – Set up following a pilot Lottery funded project, AEAP is supported by Aberdeenshire Council and SCARF (Save Cash and Reduce Fuel). The project employs 2 advisers who engage rural communities across the county through holding community meetings and working on other types of promotion. The aim is to link measures that help alleviate Fuel Poverty, reduce energy use/CO₂ emissions and benefit the community in a wider sense
- **Older Persons Energy Network** – The Older Persons Energy Network (OPEN) began in September 1998. The aim of the scheme is to train retired people as volunteers to provide energy efficiency advice at events within the North Somerset area. The scheme was started by the Centre for Sustainable Energy (CSE) and has been run in partnership with North Somerset Council and other local organisations
- **Ecodyfi Community Renewable Energy project, Wales** – Established in 1998, the project is centred on Machynlleth in mid Wales. Funded in part by European regional development funds, it has brought together a variety of partners to help promote renewable energy schemes within the local community
- **Power Factory** – Power Factory is a planned large-scale wind turbine development in a former coal-mining area of the Rhondda in South Wales. The development proposal is based on an equal partnership between the local community and the private sector. Planning permission is currently being sought for the development
- **Working Herts Energy Efficiency Training Scheme** – based in Hertfordshire and South Bedfordshire the project was launched in 1997. Its aim is to recruit and train the young unemployed in the installation of energy and water saving measures. Support for the scheme has come from Local Authorities and a range of other organisations including the police, careers service and housing associations
- **The Energy Care Network (TECN)** is run by ECSC (Energy Conservation and Solar Centre), a charity supporting sustainable energy projects across the country. The project, which operates in the southern counties of England, has sought to provide frontline health and social care staff with information on energy issues, enabling them to identify those most at risk from Fuel Poverty and ensure that they get support to improve the energy efficiency of their home

For each project the following approach was taken:

- Background information was gathered through telephone discussions and the completion by the project manager of a standard data collection proforma (Appendix 2). This was supplemented by an analysis of annual reports and other background information supplied to CAG. The aim of this phase of the research was to collect as much quantitative data on the energy benefits and wider economic, social and environmental benefits of each project
- Informed by this, Focus Groups were held to discuss the experience of those managing the project and those who had benefited from the service provided in more depth. Two Focus Group discussions (one for project partners and one for project beneficiaries) were held for each Case Study, with the exception of Energy Care Network and Aberdeenshire Energy Advice Project where project beneficiaries were interviewed by phone. In both cases it was felt that the large geographical area over which the projects operated meant that it would be unreasonable to expect people to travel significant distances to attend a Focus Group

b. Gather and analyse up to date information on other community sustainable energy projects

In addition to the information assembled on the six Case Studies, research was also undertaken on a number of other community sustainable energy projects. The project managers of all projects listed on the CAfE database were contacted and invited to provide up-to-date information on the energy and wider benefits of their work. The following projects responded and the information they provided is summarised in section 3.

- Bright Green Savers Programme
- Awel Aman Tawe
- Dundee Community Energy Project
- Hill Holt Wood
- Bristol Care and Repair
- Community Health and Energy Awards Scheme (CHEAS)

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- NEA/Northern Electric Credit Union Project
 - Energy Resources for Tenants
 - Winteraction Peer Group Advisor Project
 - Take Control
 - Village Energy
 - Global Action Plan Community Energy Project

c. Provide an appraisal of the benefits of adopting a community-based approach and highlight any barriers to progress

Drawing on the broad range of evidence gathered, the report concludes with an assessment of the benefits that community based sustainable energy projects have delivered. In particular, the quantified data and focus group discussions are drawn upon to identify the added value that a community approach can bring, and also the barriers to effective community based working.

2. Defining Community Sustainable Energy Projects

Any analysis of the benefits of a community-based approach to energy issues must be underpinned by a clear definition of the concept. This in turn must be based on an understanding of the following terms:

- Community
- Stakeholder Involvement and Community Involvement
- Sustainable Energy

Taking each of these in turn:

Defining 'Community'

On the surface it may appear that 'community' is easy to define. However, as the UK Government accepts '*deeper attempts to define community comes to the conclusion that there are many types of community*' and '*whatever it is that makes a group of people into a community is elusive and fluid.*' (ODPM, 2003). The UK Government's Sustainable Development Strategy lists 27 factors in '*building sustainable communities*', 25 of which are simply public issues such as employment or transport. ODPM also includes infrastructure and services (e.g. education, housing, etc) as part of the concept.

High-quality Infrastructure is certainly an important element of sustainable communities, and improvements in infrastructure are a significant aspect of community based energy work. However, in the context of this report infrastructure improvements are considered to be part of the outcomes of a project.

For the purposes of this research communities are therefore defined in terms of people and organisations. Communities can be a ***Community of Locality*** (based on a geographical location) or a ***Community of Interest*** (i.e. with a shared outlook with regard to faith, politics, social interaction, ethnicity or common interests). The geographical extent of a ***Community of Locality*** is limited to a neighbourhood, town or county i.e. a well understood and clearly defined area within which most people would perceive that they have a common local identity. It does not extend to regional or national initiatives but instead draws on the strong sense of common purpose that often exists at the smaller scale.

It should be stressed that this definition of community does encompass a range of stakeholder organisations that work with and help serve the community (including national and local government, business, NGOs and charities) as well as the residents of an area or those of a shared community of interest.

Defining 'Stakeholder Involvement' and 'Involvement of the Local Community'

Stakeholder Involvement As noted above, community is not simply defined as the people living in an area or sharing a common bond but the wider group of organisations that help to serve and support each community in the UK. Stakeholders include Local Government, Private Business, Charities, NGOs and Trade Unions.

Partnerships and collaborative working between different stakeholders and groups in the community is seen as central to the promotion of local sustainable development by both the United Nations and the UK Government. Recent years have seen new mechanisms such as Local Strategic Partnerships or Community Planning Partnerships established, with the aim of harnessing the resources of different parts of the community to enhance the common good.

As is demonstrated by the case studies, many CSEPs draw on the resources of a wide range of community based organisations to help enhance their effectiveness. The involving of appropriate stakeholders and the development of a partnership approach are thus an important aspect of the community-based approach to sustainable energy.

Involvement of the Local Community While many stakeholder groups can be viewed as being part of a community, the local people themselves are central to any community based approach to sustainable energy. It is the engagement with the people of a locality (or those representing a community of interest) that underpins all CSEPs and, as will be explored later in this report, the most significant strength of this approach over alternatives.

The level of engagement and/or participation of local people in sustainable energy work can, as the case studies on CSEPs set out in this report illustrate, take many forms. Residents themselves can take the lead role in developing energy projects either as part of their paid employment or simply on a voluntary basis. Alternatively, the initiative can come from a developer or from a third party such as a Health Authority or a charity (see ETSU, 1996).

Where the initiative comes from a developer or third party, the level of involvement of the community and the means by which they are engaged can vary greatly. Communities can be active participants from the inception of a project, helping to define and shape its aims, objectives and mode of operation. In other cases, communities can simply be the beneficiaries of a service provided by an organisation, through improvements in the energy efficiency of households or advice that helps people cut their fuel bills.

Various attempts have been made to define different types of community involvement. Among the most widely used of these are the 'ladders' of involvement developed by Arnstein and Wilcox. Arnstein's ladder defines 8 levels of community involvement, the highest of which is 'Citizen Control'. (Table 1 overleaf). A slightly different classification system is proposed by Wilcox who identifies five interconnected levels of community involvement and argues, unlike Arnstein, that the highest levels of community control may not necessarily be appropriate for all projects.

In this report the Arnstein ladder is used to identify the level of community involvement. Arnstein provides a clearer framework for classifying the many different levels of community or citizen control or involvement that are apparent in community sustainable energy projects.

However, the hierarchical approach of Arnstein is rejected: in other words a project classified as Level 2 on the ‘ladder’ is not necessarily an inferior community energy project than one ranked at Level 7. In many cases it may be that community control or direct community involvement in project management may not be practical – for example, the financial or time resources or the awareness of the potential of action on energy to improve the lives of local people may not be present. In such circumstances external organisations from the private or public sector can help lead or contribute to community initiatives with benefits to all concerned.

For this reason, projects featured in this report are appraised on their ability to deliver energy improvements and wider economic, social and environmental goods, with the nature of community involvement simply one element of the overall project evaluation.

Level 1	Manipulation	These levels assume a passive audience, which is given information which may be partial or constructed
Level 2	Education	
Level 3	Information	People are told what is going to happen, is happening or has happened
Level 4	Consultation	People are given a voice, but traditional power holders still make the decisions
Level 5	Involvement	People’s views have some influence, but traditional power holders still make the decisions
Level 6	Partnership	People can begin to negotiate with traditional power holders, including agreeing roles, responsibilities and levels of control
Level 7	Delegated Power	Some power is delegated
Level 8	Citizen Control	Full delegation of all decision-making and action

Table 1: Arnstein’s Ladder of Participation

Defining ‘Sustainable Energy’

Sustainable Energy can be viewed as having three main aspects. Firstly, it involves increasing the efficiency of the way we generate, transmit and use energy. Secondly it is concerned with the conservation of energy. Thirdly, it is about substituting polluting fossil fuels with renewable or low carbon sources. All these aspects of sustainable energy can be promoted through community based work and the projects evaluated in this report help in the promotion of all the elements of sustainable energy.

The focus of this research is taken to be projects whose primary *environmental* goal is more sustainable energy, rather than those (e.g. waste minimisation or transport projects) which may result in energy saving but whose primary purpose is another element of environmental protection.

A **Community Sustainable Energy Project** is therefore defined as one that is:

- Focused on one or more distinct communities (these can be based on geography, faith, ethnicity, age, interest)
- Puts the local people and community at the heart of its work and benefits them in terms of energy improvements and other economic, social and environmental gains
- Involves other stakeholders as appropriate and ensures effective partnership working to maximise energy and non-energy benefits for local people
- Leads to wider benefits for local people in terms of employment, health, regeneration, income, capacity-building, local environmental quality

3. The Framework Supporting a Community Based Approach to Sustainable Energy

Involving a broad range of stakeholders is a fundamental principle of sustainable development, enshrined in Agenda 21 and asserted at the World Summits on Sustainable Development held in Rio de Janeiro and Johannesburg.

In relation to energy efficiency work, stakeholder involvement, partnership working, community consultation and the need for a local focus is supported by a range of Government strategies including those on Fuel Poverty and Climate Change and by the Energy White Paper. DEFRA Guidance to energy conservation authorities on strategies to reduce fuel poverty and achieve affordable warmth highlight the need for strong links with the community and voluntary sectors. Similar support for community based energy work is given by the Scottish Executive, Welsh Assembly and Northern Ireland Assembly.

Backing for a community oriented approach to energy issues is also provided by the Local Government Association (LGA, 2001), while the Royal Commission on Environmental Pollution (RCEP, 2001) recommend that every community in the UK should consider their energy impacts and how their local energy generation and use can be made more sustainable.

This framework is in turn supported by a raft of community based initiatives aimed at promoting local energy efficiency and renewable energy projects.

These include:

- Community Action for Energy (CAfE) supported by the EST and managed by the Centre for Sustainable Energy
- Other EST community based partnership working programmes including the Local Authority Support Programme (LASP) and the planned Sustainable Energy Centres
- A broad range of large scale initiatives aimed at improving domestic energy efficiency, such as Warmfront/Warmzones, the Energy Efficiency Commitment (EEC), Transco Affordable Warmth programme, British Gas's Here to HELP scheme, and community based work undertaken by EEACs, public agencies and through HECA
- Countryside Renewables Initiative (CRI), Scottish Community Renewables Initiative (SCRI), and a number of other schemes supporting community renewables including Clear Skies, Windworks and Solar Clubs

In addition to the projects assisted by the specific schemes listed above, a far broader range of community based energy work is supported by organisations including EEACs, Regeneration agencies, Local Authorities, Regional Government, Health Authorities, NGOs, charities, community organisations, energy utilities and the wider private sector. The role of all these organisations is extremely significant and also varying in character: they can fund projects, take the lead in establishing and running projects, or be an active partner.

The Case Studies

Analysis of each of the 6 case studies is set out below. For each case study a general description of the project is provided along with the main energy and non-energy benefits. Where collected by the project partners, the quantified benefits of the project are set out. Each case study also draws on the views of the project manager and those involved in the Focus Groups to set out the lessons learned from the project and the barriers to progress that were experienced.

1. Working Herts

Working Herts is a limited company and a charity operating across Hertfordshire and Bedfordshire. The programme was established in 1997 and has an annual budget of £750,000. The core aims of the project are to:

- Assist young (16-25 years old) unemployed people into work through providing them with training and work experience in installing energy and water conservation measures
- Deliver energy and water conservation measures and provide advice on resource conservation to target households in the area
- Fit smoke alarms and security measures to households

Trainees are selected through referrals from the Connexions Service, job centres and the police and the project has now been asked by Social Services to recruit people who have recently left care accommodation in the area.

The households on which work is undertaken are identified by three different routes:

- Street by street treatment for social housing providers
- Street by street treatment for private housing where housing repairs assistance money is available
- Through referrals from social services, environmental health, the police and NGOs/charities of individual households in need (mainly the elderly and those receiving benefits)

Organisational Structure

The company is based in Borehamwood in north London (2 miles north of London in South Herts). Working Herts is supported by a large number of partners including five Local Authorities in the area (Hertfordshire County Council, Hertsmere, Luton, Welwyn Hatfield and Three Rivers), the Hertfordshire Careers Service, the police and fire service, two housing associations and Three Valleys Water plc. The management of the project is overseen by a Board selected for their professional expertise and includes the Head of regeneration at Hertsmere Council, the Head of the Careers Service, and representatives of the LSCs.

Trainees work in teams of 6 under a supervisor and they are also provided with training from the project and local colleges. Working Herts provides a range of assistance to help trainees find employment.

The structure and approach taken by Working Herts is informed by consultation with both tenants and trainees to determine what sort of service they would like and what sort of approach was likely to deliver the desired results. They also have a sophisticated system to enable tenants to feedback their views as to the service provided. This feedback is subjected to detailed analysis and used to inform trainees as to their performance. In this sense the customer helps train the trainees.

At the same time the views of the trainees as to their work and the support provided is also seen as of crucial importance. Feedback from trainees is analysed, and the company strive to develop and maintain best practice training, drawing on the advice of the LSC, careers service and other partners.

Achievements

Energy Benefits

Working Herts delivers significant energy conservation benefits to the tenants and homeowners whose properties are upgraded. The trainees insulate around 1,200 lofts and undertake 400 cavity wall insulation and 200 draft proofing measures every year. In addition, around 1,000 CFLs (low energy lightbulbs) are distributed per annum. Based on the assumption that each household treated for loft insulation, cavity wall insulation or both is likely to save around 1tonne per annum in CO₂, Working Herts calculate that in 2003 around 1,300 tonnes of CO₂ were saved by the measures enacted.

The impact of the physical energy conservation measures installed is added to by the energy advice that all customers are provided with. This has not been quantified, but it is expected that increased awareness among homeowners is likely to have led to further energy savings.

Wider Benefits

Working Herts employs 14 fulltime staff and provides almost 100 unemployed people with training every year. The aim of the training and work experience provided to trainees is to increase their general employability rather than to simply provide them with the skills to gain further work in energy conservation. All trainees are provided with education and skills training related to energy conservation and also other skills including driving and basic literacy.

Seventy percent of trainees go on to full-time employment after 3-6 months training with the company. This would be impressive in any context but is particularly so given that the majority of those undergoing training are young men and women who have been referred to the scheme by job centres and police and who are perceived to have particular problems in gaining employment.

The benefits to the young people involved were emphasised in the Focus Group discussions. Comments made by trainees included *'the work helps get you out of bed - you get back some order and routine in your life which can slip when you are unemployed'* and *'it has really helped give me some confidence and some pride in what I do.'* One of the Focus Group participants, who had benefited from the energy measures installed, commented that in addition to the improvements in home comfort and the cuts in bills *'meeting the people who had undertaken the work has broken down some of my prejudices about teenagers – I now understand the problems they have to deal with.'*

Other benefits include:

- Cutting fuel bills, helping increase local economic spend, and improving home comfort
- The water conservation measures installed have led to an average cut in water consumption of 7%, benefiting both customers and the water company who are better able to meet demand
- Through linking the energy work with the fitting of home security measures and smoke alarms the project also enhances community safety. In addition to the measures already undertaken as standard Working Herts is exploring with police the 'postcode marking' of residents property while the energy and water conservation work is being undertaken. This would assist in the recovery of stolen goods
- Through tackling youth unemployment and alienation the project has helped cut crime, with offending rates in areas where Working Herts has targeted recruitment falling at above average levels
- Trainees also provide other help to elderly people when they are in their house, e.g. changing light bulbs or clearing bulky rubbish

Lessons

- The recruitment of trainees from the local community has helped increase the effectiveness of delivery of the conservation work through reducing the suspicion of residents as to the intentions of the project. In many cases the young unemployed trainees establish a good relationship with the mainly elderly householders whose homes are being improved. Many of the trainees have lacked a decent home environment in the past and the bond established between them and the householders can assist in their development as well as helping the project win the trust of the community
- It can be difficult to sell energy conservation to people who are suspicious of what is being proposed or who don't appreciate the benefits to them. This is particularly the case for marginalised groups within the community. Through linking energy and water efficiency to employment and community safety it has proved easier to win people over and therefore deliver significant energy savings

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- The link with employment has also meant that funding from other sources (including New Deal or the LSC's Employment Programme (E2E)) has been used to provide additional funding for energy conservation work
 - Work on energy conservation is particularly suited to developing skills that are generic and therefore transferable, such as utilising tools, team-working, form completion, customer care and communications. Other significant benefits for trainees include a rise in confidence and an appreciation of the need for punctuality and reliability.
 - The combination of energy improvement and employment skills training has led to wider benefits in terms of partnership working between and within organisations. Within Local Authorities the project has helped encourage collaborative working between Environmental Health, Economic Development, Community Planning and Housing staff, with longer term benefits for all
 - Ensuring the high quality of work carried out is essential for the widespread delivery of such projects
 - Many commercial insulation companies tend to 'cherry-pick' the households they work on to maximise outcomes. The elderly and frail can be ignored as they are often more difficult to persuade of the benefits of such work and their houses are also likely to have a large amount of possessions stored in the attic or loft, making progress with work slower and more expensive. The more social and community focus of Working Herts helps overcome this

Barriers

- The gathering of energy saving data can be time-consuming for small organisations
- While the community is the focus of the project, actual community control over such projects is problematic. This is for a number of reasons largely related to the high programme management and audit requirements expected from government funding sources. Particular problems include the need for audited figures on expenditure and outcomes from the European Social Fund, the requirement for health and safety policy to obtain insurance cover, and the bureaucracy required to obtain funding from New Deal and the Learning and Skills Council. All these factors are likely to put management of such projects beyond the reach of many community organisations

2. Aberdeenshire Energy Advice Project

Aberdeenshire Energy Advice Project (AEAP) was established in 2001 with the aim of providing guidance and support to local people in improving their home energy efficiency and cutting their bills. The project is managed by SCARF (Save Cash and Reduce Fuel) which works on fuel poverty and energy issues throughout north-east Scotland. It is the smallest project, in terms of budget and staff resources, among the case studies.

The particular challenges for the Aberdeenshire Project are delivering energy advice in a large and diverse county comprising a number of small towns and a large rural and remote hinterland. The structure and approach taken by the AEAP was informed by an earlier 3 year rural pilot project funded by the National Lottery. In this earlier project staff were located in three separate offices across Moray and Aberdeenshire, with the aim of ensuring that staff were geographically closer to the people they served. However, it was found that locating staff in different offices led to confusion among the public about which office to contact, and when the initial pilot project ended a decision was taken to locate the staff in one central office but to ensure that they visited all parts of the county on a regular basis.

The AEAP staff raise awareness through leafleting and advertising in the local media, as well as through visits to events such as agricultural shows. They use their local knowledge to identify the key meeting places within communities and hold advice sessions where they are most likely to engage with local people, such as cafes and shops.

As with all SCARF's activities, the aim of the project has been to provide a high quality and tailored service, identifying a wide range of funding sources for energy work and other community needs. One particular case involved staff committing almost 100 hours to assisting an individual with an advanced form of motor neurone disease. The individual concerned was told that he would have to go into care as he could not operate the coal fire in his house, but was determined to remain independent. The AEAP staff undertook an energy survey and contacted a wide range of people, including the individual's former employers, to seek funding for the installation of central heating and insulation. After negotiation two former employers provided the individual with the required funding and his house was improved.

Organisational Structure

The project is managed by SCARF and funded by Aberdeenshire Council, who provide £60,000 per annum to support the work. The project employs two full time staff, both of whom are based at Aberdeenshire Council's offices in Inverurie. Both staff travel extensively throughout Aberdeenshire to hold community sessions and to provide advice to schools and other groups.

Achievements

Energy Benefits

The distinct nature of each person's situation makes it extremely difficult to gather overall data on energy savings. However, data is gathered on all sorts of other information, such as number of client contacts, phone calls and home visits from which the overall energy impact can be broadly estimated. In the last financial year advice and support was provided to a total of 334 clients.

The standard calculation is that each of those provided with support is likely to deliver an average of £32 per annum in energy savings. However, a significant number of clients received home visits and in such cases the overall energy savings are likely to be significantly higher. Evidence of this can be ascertained from individual case studies. In one particular case an individual was able to cut her quarterly heating bill by around £300 through insulation measures and tariff switching.

Wider Benefits

The high quality service that AEAP has set out to achieve means that clients are offered a wide range of other support and advice. Individuals have been put in touch with social services and local charities who are able to help improve lives in other ways. Those people who had benefited from the AEAP spoke in interviews of the wider benefits to them and their family that the integrated approach of the project staff had delivered. The relatives of the individual affected by motor neurone disease highlighted how, in the particular case of her relative, the family had not receive adequate support from either Health or Social Services, due to their narrow remit. AEAP *'had helped fill in the gaps, and this had greatly improved the quality of life of the whole family, not just the person directly affected.'* Another participant stressed how *'AEAP staff delivered great economic savings which I did not realise I was entitled to.'* This had led the Focus Group participants to spread the word about energy efficiency to others in their community who had in turn contacted SCARF.

Lessons

- The earlier pilot project demonstrated that the location of staff is not particularly important – what is important is that staff get out and meet people face to face

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- Providing a high quality and efficient service is vital, with the growth in awareness of the benefits of energy conservation only occurring where people can see that those in their community who have undertaken such work have gained from it and suffered minimum disruption
 - The centralising of resources has meant that a staffed telephone line is always available. This is important as many in the community, particularly the elderly, are unwilling to leave phone messages
 - With any community based work it is important to fund the project over at least three years. It can take a long time to build up a proper level of awareness about a project, and too many projects end just as they are building up a head of steam
 - The offering of free CFLs and other materials can help overcome a perception among some that the project is trying to sell goods or to promote one energy supplier
 - In many cases people in particular need, such as those with chronic or terminal illness, are not given adequate support by either the health service or social care as their needs fall between the remits of the two services. Organisation such as SCARF and projects such as AEAP are able to bridge this gap and take a more rounded view of community need
 - Improving the home energy efficiency of those in special need also has a significant positive impact on their relatives and carers. This is often overlooked

Barriers

- Much of the older housing stock in Aberdeenshire is expensive to insulate given its construction. This, and the rural nature of Aberdeenshire, means that each set of energy improvement measures is more expensive to deliver

3. The Energy Care Network

The energycare network (TECN) began in 2001 and works in Kent, Surrey and Sussex. The initial 3 years of the project have been completed and it is now under review. The project aimed to provide training and support to frontline workers (including Health Visitors, Home Carers and Care and Repair staff) to raise their awareness of fuel poverty issues and the funding available to tackle inefficient energy use. Over the course of the project more than 650 frontline staff were provided with training and more than 300 of these staff remain active members of the network.

TECN network members are able to provide advice to residents as to easy ways to reduce their heating bill, save energy and ensuring that those who are eligible are in receipt of winter fuel payments. The members of the network are also able to help link those in need to a grant referral system which enabled them to access funds for insulation and heating from a variety of sources. Individuals were also offered energy saving advice.

The project also provided a freephone number which could be used by both clients and members of the energycare network to provide more information on energy efficiency and the grants available. The advice is offered to all, but with a particular focus on those who are on state benefit and therefore most likely to be eligible for grants. In particular they are interested in those who might be particularly vulnerable to fuel poverty and associated health problems, including the elderly, chronically ill, disabled or those on low income. More recently other 'hard to reach' groups such as members of Black and Minority Ethnic (BME) communities have been targeted for help and advice.

Organisational Structure

TECN was established and led by the Energy Conservation and Solar Centre (ECSC), a national charity based in London. Funding for the project was provided by Seeboard Energy, part of EDF Energy. The overall budget of the project was £347,000 over three years.

Organisations that have been in receipt of training from TECN include Home Improvement Agencies, Social Services, District Nurses, Occupational Therapists, Local Authority staff, Citizens Advice Bureaus, Surestart staff and representatives of charities such as Age Concern.

TECN is also developing a database of people within the network so they can get a better understanding of the skills base and geographic spread of those involved. The network sends out a newsletter via email and runs 3 network events per year. TECN invite speakers to address the network meeting, depending on the requests they have had from networkers for specific information.

Achievements

Energy Benefits

Over the first three years the project was in operation, a total of 683 loft insulation measures were fitted, along with 625 cavity wall insulation measures. In addition almost 6,300 CFLs were provided along with a number of other measures such as condensing boilers and room thermostats. These measures have largely been installed in the homes of those most in need who, ironically, are also often the most hard to engage with. Around 4,000 people have been given energy advice aimed at improving the way in which they use energy in their home.

Wider Benefits

Networkers can refer clients for benefits advice. This has proved to be particularly the case where it is felt that the client should be on benefits and therefore entitled to a 100% grant for insulation.

Lessons

- It is often the case that those most in need of energy conservation measures are passed over by conventional energy advice provision. One strength of TECN is that it engages with frontline staff who are generally known and trusted by the local community, increasing the likelihood that energy measures and advice will be taken up by clients.
- As the project utilises staff who are in regular contact with clients and have expertise in health and social care, they are most likely to identify the people most in need of support.
- At first TECN sought to recruit anyone who was interested in joining but this has been found to be inefficient. Now they target those who are working most closely with vulnerable and target groups.

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- It is essential to provide members of the network with adequate feedback, regular contact and support as otherwise their interest is likely to wane over time.
 - Systems need to be put in place to enable the means by which clients become aware of energy advice to be determined. It was found with the project that it was not always clear why an individual client had contacted the freephone number to seek advice.
 - The project has proved useful in identifying the gaps in the current support structure – for example, it has shown that some individuals in Fuel Poverty are not eligible for any of the major grants.
 - Clients often want information on a range of issues and where a networker can offer this a better service is provided.
 - Clients want a quick response and a high quality service with minimum disruption. Where this is delivered it is likely to lead to further work through word of mouth recommendations.
 - The project has helped increase awareness of issues between different types of officer working with the community and this has led to better working all round. Networkers have been able to feed back gaps in service to their organisations, leading to service improvement.

Barriers

- Staff from social services departments have proved difficult to recruit although it is not clear why this is the case.
- With such a project there are several links in the chain of communication from client to networker to the project (energy advice) to Seeboard Energy (who fund the insulation work) and to the contractors who actually carry out the work. Proper systems need to be in place to manage this chain properly and ensure the client receives a high standard of service.
- Some clients have wrongly felt that the scheme is trying to promote Seeboard Energy's products and services in an unfair way, although the fact the advice is offered by a trusted worker has help reduce this issue.
- The individual local authorities across this large region all have their own approaches to energy conservation work. Despite the strategic approach that the councils are trying to develop, there is great variation in the support available from different councils.

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- The networkers have found the range of schemes available (eg Warmfront etc) to be confusing and this can be a barrier.
 - The networkers offer a lot of advice to clients on behavioural change (eg closing curtains). It has not proved possible to quantify the energy impacts of this and to do so would require significant research resources.
 - People in Houses of Multiple Occupation (HMOs) and other in private rented accommodation are particularly vulnerable and it has proved difficult to persuade landlords that they should apply for a grant or instigate improvements.

4. Ecodyfi

Ecodyfi is based in Machynlleth in Mid Wales and serves a community of 12,000 homes in the Dyfi valley. The area is rural in character, with an economy based on forestry and agriculture as well as tourism.

The original community energy project aimed to:

- Encourage local people to engage with energy issues
- Establish some “community-based” renewable energy installations
- Improve understanding and support for renewable energy by maximising local benefit and by taking a consensus approach

Specific targets were to develop 5 individual community-based renewable energy schemes, with 350 kW of capacity (whether electricity or heat) and a forward-planning strategy for the local energy economy.

The EU funding (ERDF) enabled the project to grant-aid eligible schemes at a rate of up to 30% of capital costs. Financial help has also been given towards feasibility studies. Other funding sources and in kind support have been provided by the Welsh Development Agency, Powys County Council, Dulas Ltd, Shell Better Britain Campaign, local investors, Ceredigion County Council and Cymad – a LEADER group. The original community energy project was funded for three years and then extended to December 2001. Since then it has continued at a lower level. In one third of the area, similar grant aid is available to schemes through Mid-Wales Energy Agency.

Ecodyfi's activities have broadened out from just energy and now encompass eco-tourism, waste minimisation, community activities and the contribution of all these areas toward economic regeneration. Renewable energy still has a significant place in the forward plans for the organisation with new activities including the promotion of energy efficiency.

Organisational structure

Ecodyfi is a Company Limited by Guarantee run by board of elected members. It currently has 120 members and employs one full time and two part time staff. Most are individual members of the local community, but there are 24 'corporate' members of which 7 are town or community councils (Welsh equivalent of Parish Councils). The AGM of members elects a board currently comprising of 16 members (including staff members). Between 20 and 40 members attend AGMs. 5 of the current board have been members since Ecodyfi was formed in 1998.

In the past, Ecodyfi was a partnership focussed on the community energy project with the key partners (Powys, Ceredigion and Gwynedd County Councils, Dulas Ltd, Centre for Alternative Technology, Snowdonia National Park) playing a more central role at the board level. The current structure gives much more control to the community and the partners tend to contribute at a project delivery level.

The board meets about 6-8 times a year and is responsible for policy, priorities and financial propriety. Some project ideas come from board members but the board is heavily reliant on information and initiatives coming from the Manager. A member of the board provides supervision for the Manager on a six weekly basis.

Day to day management is undertaken by the Manager with reference, when necessary, to two co-chairs. Project delivery is in the hands of the staff of Ecodyfi, working with the partners, members and the community. Both CAT and Dulas play a key role in supporting the technical delivery of the energy-related projects. The staff at Ecodyfi work with the community, and members e.g. helping them to make funding applications etc. Many of the energy projects undertaken to date have involved householders, farmers and investors taking a very active role in implementation.

Achievements

Energy Benefits

The main energy benefits have been promoting the use of renewable energy sources and aiding the implementation of small-scale renewable energy projects. A number of small schemes have been developed utilising various renewable technologies including photovoltaics, solar water heating, wood-fired boilers and stoves, hydro and wind. 200 kW of electricity and 150 kW of heat capacity have been installed.

The community energy project offers staff time, with the Project Officer responding to suggestions but also initiating them in some cases (particularly following a hydro-electric resource study). He provided first level feasibility studies free, together with other administrative support and guidance as necessary, including acting as planning agent for a farmer and as secretariat for two community groups formed for the purpose. Initial ideas were worked up (where they proved to be feasible) into applications for grant aid and the successful ones guided forwards to implementation. Scheme proposers / owners include schools, farmers, other businesses, householders and community groups.

One scheme has resulted in the formation of an Industrial and Provident Society called Bro Dyfi Community Renewables Ltd. This is a vehicle for local development and ownership. It currently has about 60 shareholders with investments varying between £100 and £1000. It has erected a 75kW wind turbine as its first project selling its electricity to CAT and earning about £4500 per year. Part of the 'profits' from the sale of electricity from this community wind turbine are now going into a 'community energy fund' which is being used in part to support improved energy efficiency.

The single largest project has been the construction of a 120 kW farm based hydro scheme generating electricity for sale to the grid. A Solar Club promotes solar water heating to householders and puts them in a position where they may install their own system.

Wider community benefits

A key aim has been to use sustainable energy as a way of diversifying the local agricultural/forestry based economy. Ecodyfi has succeeded in drawing in £300,000 of investment into the local economy, enabling local people to develop renewable energy projects – many of which would not have been viable without this support. Ecodyfi has generated schemes which provide a market for a small cluster of energy based businesses. The farm based hydro scheme generates an income of about £13-14,000 per year and will enable the farmer to employ his sons once they complete their education.

The first tranche of schemes are now generating further interest and activity. For example, the success of the first hydro scheme has prompted a group of farmers and a builder to look at the possibility of developing further hydro schemes. A couple who are constructing an eco-home, with renewable energy systems installed with the assistance of Ecodyfi, are planning to use their experience and their home as a resource for eco-tourism and educational activity in the area. Bro Dyfi are now taking forward the development of a second and much larger wind turbine (about 600 kW) which will replace an existing wind turbine owned by CAT. Investors in Bro Dyfi receive a dividend each year. The last year's dividend was 3.4% (a poor year) but they are predicting dividends of as much as 8% in the future.

A councillor from Machynlleth Town Council and a member of Ecodyfi also pointed to the positive impact on the image of the area and this is assisting in a bid for the area to be designated as a UNESCO Biosphere. This in turn helps to pull in regeneration funding and supports tourism.

Lessons

- Ecodyfi has evolved from a partnership organisation into a truly community based organisation. This transformation has been mirrored by a broadening of its areas of activity from just renewable energy to economic regeneration. These two changes have gone hand in hand in that the organisation is now more directed towards meeting local priorities.
- Success breeds success – early gains are now stimulating both new initiatives and replication of successful schemes. Ecodyfi is generating a positive image of the Dyfi valley as an area looking to the future.
- Ecodyfi has provided appropriate support to its members and the community to enable the development of renewable schemes. This has included generating ideas, testing feasibility, providing access to financial support to make scheme economically viable, and access to technical/development expertise. All of which have given confidence to individuals to become actively involved.

Barriers

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- Ecodyfi has been fairly effective at overcoming most barriers. Bureaucracy is the main factor working against ordinary people taking forward schemes.
 - BroDyfi has been experienced some difficulties with all the administration it is required to take on with only voluntary labour. It has also faced problems because some funders will not allow their funding to be used as shares.
 - The farmer who has developed a hydro scheme and who is now taking forward a second scheme has faced a lot of bureaucratic hurdles with the Environment Agency (whereas the Snowdonia National Park has been very supportive).
 - The eco-home developers have faced prolonged processes for obtaining planning permission (for solar water heating in a conservation area).
 - There have been problems in persuading electricity network managers to connect generators to existing lines, with the developer being required to pay for upgrading lines to a required standard. Problems have also been encountered in relation to the requirement to demonstrate that connections to the electricity network meet safety regulations

5. The Power Factory

'The Power Factory' is a wind farm project of eight 1.3 MW turbines being developed by the Arts Factory, a community owned Development Trust operating in the Rhondda Valley in South Wales, a former mining area now in need of new investment and regeneration. The Arts Factory was created in 1990 by local people who are sick of being labelled as problems and wanted to be part of the solution.

The main purpose of the Power Factory project is to create an asset that delivers an income stream to enable the Arts Factory to provide community services and to create community enterprises. Currently the Arts Factory receives 40% of its funding through the ERDF, a source of funding which is unlikely to continue with the accession of the new and poorer members of the European Union. The Arts Factory sees creating a long-term secure income stream as a way of maintaining organisational momentum, enabling it to continue developing its services most of which are free to its members (membership costs £1).

Organisational structure

The Power Factory project is planned to be a 50/50 joint venture between the Arts Factory Community Development Trust and United Utilities Green Energy (renewable energy developer). At the time of writing heads of agreement had been drawn up but further progress is dependent on securing planning permission.

To date the Arts Factory has taken responsibility for marketing, consulting and involving the community in the project. United Utilities is responsible for the technical aspects of the project (e.g. designing the wind farm, commissioning the environmental statement) and investing about £5.4 million in the project.

The intention is that Art Factory members will have 50% control of the Power Factory but the final details of the company structure is yet to be finalised.

Achievements

To date the main achievements have been:

- To find a commercial partner for the joint venture. This process was assisted by Dulas Ltd who evaluated the bids from potential partners.
- To put together the proposal for the wind farm
- To mount a major promotional and consultation exercise – including 50 road shows, two public meetings and delivering leaflets door to door, collecting 1844 signatures on a petition.

However, these efforts have yet to deliver planning permission for the wind farm. In December 2003, a majority of elected member from the planning authority (Rhondda Cynon Taff County Borough Council) voted against the proposed development. This means that the Power Factory proposals have now gone to appeal and will be determined by the planning minister of the National Assembly for Wales. This was a major disappointment for members of the Arts Factory. United Utilities had hoped that by teaming up with the Arts Factory would deliver planning permission without an appeal to the National Assembly. However, until planning permission is obtained all other benefits of this project remain potential rather than actual.

Potential Energy Benefits

The Power Factory wind farm will have a total generating capacity of 10.4 MW, sufficient to provide power to the equivalent of 6,300 homes (21% of homes in Rhondda), and displacing 240,000 tonnes of CO₂ over the lifetime of the project. It will also provide an income stream to finance a number of activities including £96,000 / annum for energy efficiency. The business plan states that this is to include delivery energy efficiency advice to 2000 people per year, carrying out 1,600 energy surveys per year, showing casing best practice in energy efficiency, 20 energy efficiency road shows per year, distribution of 1,500 energy efficient appliances and working in local schools.

The income stream from the wind farm would also help in the development of another energy related project 'Parc 21'. This is a proposal to create a centre of excellence in sustainable living in the form of a built development that combines facilities for learning and working with green housing. An outline zero emission design for a mixed use community building (including wind turbines) has been drawn up by Bill Dunster Architects (designers of BedZED).

It is also envisaged that the joint venture model for developing the Power Factory will be disseminated to other communities, to assist them in developing other renewable energy projects.

Potential wider social benefits

The Business Plan for the Power Factory also shows income streams going to provide other community services including £97,000 a year for Youth Outreach, £101,000 a year for Learning for Life Opportunities.

The proposals also include £40,000 a year for a green tourism initiative. This would be partly based upon having a viewing platform on one of the wind turbines and a visitor centre and website located at Parc 21. Although the project has not yet been given the go-ahead, the community involvement and collaborative working that has been undertaken has brought a range of benefits to individuals and the wider community. Focus Group participants spoke of how the project had given them a high degree of understanding of renewable energy and how it could be linked to wider community generation. It had also re-established '*a strong sense of pride in the community and a feeling of hope for the future.*'

Lessons

- The Arts Factory is an organisation rooted in its community, providing a wide range of community services and developing new community enterprises. Its constituency is largely the younger and most disenfranchised members of the community. It has successfully galvanised the energy and enthusiasm of these local people.
- The Power Factory project is a radical initiative to provide a long-term funding stream for a community organisation.
- The Power Factory project provides a useful model for marrying community enterprise with private enterprise to deliver clean energy.

Barriers

The key barrier to the success of this project is obviously the need to obtain planning permission. In this instance it points to the need for the Arts Factory to forge stronger political support from local councillors.

The Arts Factory staff also pointed to the great problems they faced in obtaining the appropriate legal and financial advice for the Power Factory project. The usual sources of support for community organisations were not adequate for a project of this kind and they were forced to go to mainstream lawyers and financial advisors and pay commercial rates for their services. This required a considerable up front financial commitment from the Arts Factory. There was also a very large commitment in terms of staff time. This is where they would have liked to have access to some external support.

6. Older Persons Energy Network (OPEN)

OPEN is a project operating in North Somerset, led by the Centre for Sustainable Energy (CSE) that uses older people from the community as volunteer energy advisors to provide services to the whole community. North Somerset is a relatively affluent area with a high proportion of retired people. The project was initiated in 1998 by CSE. It is still ongoing but future financial support is uncertain. There are currently half a dozen volunteers.

Tasks undertaken by the volunteers include:

- Working in the EEAC - sending out letters
- Distributing leaflets to homes
- Making presentations (done in pairs) to community organisations (e.g. Probus, Church groups)
- Doing sessions in local schools
- Stalls at shows and events (e.g. The local flower show and outside the local Do-it-All) getting people to fill in Home Energy Checks
- House Visits (done in pairs) – fairly limited in number

The project received funding from the Environmental Action Fund for its first three years. Lights bulbs were provided by SWEB. North Somerset Council provided about £2000 of funding in 2001/2002. The project is also part of the service level agreement between the EEAC and North Somerset Council.

Organisational structure

The project is managed by CSE and they were responsible for recruiting the volunteers.

Potential volunteers were invited to launch events through a variety of means including:

- Letters to voluntary organisations

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- Press notices
 - Posters in public buildings

The launch events were then used to explain the purpose and modus operandi of the project. Subsequently all the volunteers were provided with a training programme that includes the City and Guilds 6176 Energy Awareness qualification (though notably none took the exam).

Over the duration of the project, there have been a number of CSE officers responsible for the project. Currently, the project officer from CSE convenes regular meetings with the volunteers (usually at a local pub) where ideas, promotion, requests for presentations and future work are discussed. The volunteers have taken on some organisational activities such as:

- generating interest in presentations by contacting local community groups
- contacting local schools

However the project is driven by CSE and they also provides an important expert resource for the volunteers (so for instance stalls at events are usually supported by a member of staff. CSE also acts as a filter/translator of national information and programmes – providing the updates that are relevant to the volunteers (the volunteers commented that they did not find the EST Practical Help website met their particular needs).

The current group of volunteers has a considerable amount of expertise between them, all having a professional background with one member being the secretary of the Institute of Plumbing and another being a Fellow of the Chartered Institute of Building Service Engineers. They are also all very active in their local community (e.g. active in local political party, working for local hospice, captain of bowling club, volunteer driver for the transport to the local hospital, active in the local wildlife trust). As such they are very well connected to community interests.

Achievements

Energy Benefits

OPEN has focussed on the fuel rich and generated direct energy savings through distribution of low energy light bulbs and indirectly through the distribution of Home Energy Checks (HEC) though stalls at events and by giving presentations.

Its greatest contribution has probably been through raising energy awareness, particularly through presentations but also including work in schools. A key benefit is that they are seen as members of the local community and not as people trying to 'sell' something – so their message is accepted.

In a limited number of cases where they are followed through HEC responses with home visits, they have been able to assist/encourage householders in implementing measures.

The volunteers have also acted as energy watchdogs in their community – for example persuading the local Co-op hypermarket to put energy labels on the appliances they were selling.

Potential wider social benefits

The key benefit has been providing a mechanism to keep individual expertise/experience in use and supporting the local community. The volunteers spoke in the Focus Group of how many people seem to think that older people do not have much to offer, but that the project had '*given them back a sense of the skills and experience that they had*'. The OPEN project also provides another network of connections contributing to the fabric of the local community (for instance individuals who are volunteer drivers for the local hospital can tell their passengers how to get help with keeping warm).

Lessons

- There is considerable professional expertise among retired people that can be remobilised for the benefit of the local community
- Local people are more trusted sources of information and advice compared with the message coming from commercial sources such as energy suppliers etc.
- Older people can be very well connected in their community and can provide access to wide range of interests in that community.

Barriers

- There is now considerable competition from community organisations for volunteers and this means that potential volunteers can choose between those projects that provide good support, a sense of direction and development and those that don't. This

puts the onus on the managing organisation to provide consistent high quality support. This includes the types of support already being provided by CSE such as access to expertise, providing information updates, as well as ongoing training / development. These are important aspects of retaining existing volunteers and recruiting new ones.

- There needs to be recognition that for older people, a point will be reached when their age means that they can no longer contribute to a project.
- The volunteers currently involved in the OPEN project wanted targets (as professional people they were used to this approach) and they wanted feedback (how many HECs from their efforts had been received by the local EEAC?). They also wanted to be able to follow through on their initial contacts (e.g. offering a home visit to those who had returned HECs). All of these aspirations are linked to setting up systems at the EEAC so that HECs are flagged as being generated by the OPEN project, response covering letters include a paragraph offering a home visit from OPEN volunteers.

The abilities of the volunteer group needs to fully recognised and they should be given management/development responsibilities where appropriate. This requires a level of community development experience in the project officers in the managing organisation.

Other Evaluated Projects

1. Bright Green Savers Programme

The Bright Green Savers programme was established in 2000 by The Environment Trust. The project has two main aims:

- To reduce energy consumption in deprived households in East London through a combination of cost-free strategies
- To reduce fuel poverty among target groups and raise awareness about energy efficiency in the home

The programme has particularly targeted minority ethnic communities and the fuel poor and has expanded from being concerned solely with energy issues to now encompass water conservation measures, training/learning opportunities, benefits advice and access to financial services for those usually excluded. The overall budget of the project is £75,000 per annum, with financial support being drawn from energy utilities, Deutsche Bank, New Deal in the Communities and Lambeth Council among others. The project has a paid co-ordinator and Deutsche Bank staff have given their time voluntarily to help the scheme.

Achievements

Energy

To date the project has distributed 14,000 CFLs and 3,500 energy saving leaflets. They have also encouraged 1,000 households to switch to a green energy tariff and have provided 100 referrals each to Warmfront and Local Authority Grant Funding

Wider

It has been estimated that the CFLs distributed could have saved the recipients a total of around £2 million, with other savings from the wider energy advice provided. The project has also led to the fitting of 1,000 water conservation devices and also provided advice to low income and excluded groups on benefits uptake and low interest loans.

Key Lessons and Barriers to Progress

- One of the main target groups is the large Bangladeshi community in the area, many of whom do not speak English. To overcome this the project has developed promotional materials in Bengali and other appropriate languages and has also worked to build trust with community organisations
- As with other projects, the exact energy benefits of the project are difficult to quantify without detailed and expensive research. Proper monitoring systems should be established from the start to enable the results to be better assessed and also ensure that the success of individual aspects of the project can be properly assessed

Global Action Plan Community Energy Project

The project was established by Global Action Plan (an environmental charity) and ran between 2001 and 2003. The aim of the project was to help cut the Carbon Dioxide (CO₂) emissions in two communities in the south-west of England: Buckland in Newton Abbot, Devon and Stoke in Plymouth, Cornwall. The budget for the project was £178,000 over 2 years with funding being drawn from the Energy Saving Trust, SWEB, Teignbridge District Councils and a number of other sources. Other partners included local universities, EAGA and the South-West Energy and Environment Group (SWEEG).

The underlying philosophy of the project was that relatively simple behavioural changes could lead to significant energy and Greenhouse Gas (GHG) reductions. Residents in the two communities were encouraged to improve the energy efficiency of their homes, businesses and schools through a variety of targeted programmes including training, public meetings, schools projects, leafleting and work with the local media. Residents were also offered home visits to identify where savings could be made, with detailed monitoring of a sample of these visits undertaken.

Achievements

Energy

A total of 221 home visits were carried out, with the average energy saving per household shown to be 6.5% for electricity and 5% for gas. This exceeded the target set, but research linked to the project has showed that up to 20% of household energy use could be saved through simple behavioural change. In addition to behavioural change homes were provided with CFLs and some had

insulation installed or improved. It is estimated that the annual carbon dioxide savings of 25,678 tonnes have been achieved within the two communities.

Wider

The project was very much focussed on energy improvements but research has shown that the information provided and events run has enhanced understanding of a range of related issues, particularly among school children. Overall, 92% of those contacted by the project stated that they were likely to continue to act in an environmentally responsible manner as a result of their increased awareness

Key Lessons and Barriers to Progress

- Most of the requests for home visits came from home-owners rather than those in social housing or the private rented sector. It may be that a more proactive approach is required to address these other groups
- Working with partners is very useful, but this requires time and commitment. One particular issue is the need to standardise procedures and processes to fit in with the practice of all partners

Dundee Community Energy Partnership

The Dundee Community Energy Partnership (DCEP) is a large, city wide initiative with the aim of delivering significant reductions in fuel poverty across the city by 2005. The project was launched in 2002 and has a total budget of just under £800,000 over its three year lifespan. Partners in the project include energy utilities, the Claverhouse Group, SCARF, Dundee City Council, EAGA and the Scottish Executive.

The approach has been to target each of the city's 29 Council wards in turn and raise awareness of the project in each through leafleting, posters and presentations to community groups. City-wide awareness has also been raised through the local media. At the core of the project is a commitment to visit all 72,000 households in the city and undertake energy checks. In essence the project has developed a Warmzone approach despite the fact that Warmzones do not operate in Scotland

The project is located within the offices of the Claverhouse Group, a training organisation which works closely with local employers to help the unemployed back to work. The project is overseen by a co-ordinator and employs 10 surveyors who are responsible for

the home energy visits. The surveyors were recruited from the over-50s long-term unemployed. This gave new opportunities and also helped keep costs down as the surveyors were subsidised for the first 6 months of their work. One reason older surveyors were recruited is that part of their role is to identify the income of those they visit. It was felt that people were more likely to divulge their economic circumstances to more mature members of the community, an assumption that has proved correct.

The data gathered by the surveyors is fed into a database that allows staff to identify who is eligible for different programmes including Warmdeal or the Scottish Executive Central Heating Initiative (SECHI). The information provided to residents on grant availability is backed up with energy efficiency advice and advice on welfare and benefits.

Achievements

Energy

Within its first year the project visited 25,000 properties and undertook energy surveys in 11,000 homes. Of these surveys 2,700 fuel poor households have been identified. Of this group 23% are eligible for Warm Deal or SECHI assistance and these households are being assisted to obtain this funding. A total of 50,000 CFLs were distributed to the first 12,500 households surveyed.

Wider

The project has taken 10 long-term unemployed people back into the workforce. In addition, it has provided enhanced benefits uptake for many hundreds of people, improving their lives and increasing spending power in these communities.

Key Lessons and Barriers to Progress

- The programme has found that almost 70% of those identified as being in fuel poverty either have had measures fitted or are ineligible for grants. For these individuals they can only provide energy advice and help to increase benefit uptake
- The project has found that Fuel Poverty is fluid, with many people moving in and out of fuel poverty over time. This being the case, it is vital that all householders are aware of how to seek help and of the financial assistance available, so that they can access this funding if at a later date they slip into fuel poverty

Hill Holt Wood

Hillholt is an ancient woodland surrounded by settlements in Lincolnshire. The aim of the project, established in 2002, has been to engage disaffected youth in managing the woodland and in working on a range of projects aimed at improving the environment and promoting sustainable energy. The project has involved year 10 and 11 pupils who have been excluded from local schools. It has created 13 jobs and become involved in a whole range of projects promoting socio-economic good and environmental improvement

The project is a social enterprise and is supported by a range of partners including the Forestry Commission, Awards for All, the Local Authority and local businesses.

Achievements

Energy

The project has helped promote awareness of energy issues in the community. In addition, a number of sustainable energy scheme are in development, including photovoltaic panels, solar water heating and wind turbines.

Wider

The main achievements of the project have not been related to energy. The project has helped re-engage with disaffected local youth, reduce local crime and offending levels, help bridge the urban rural divide, provide low cost social housing, create employment (13 jobs at present) and improve the management of an ancient woodland.

Key Lessons and Barriers to Progress

- To be truly successful such projects need to be properly resourced. This is problematic as most funding sources have narrow and defined aims and it can be difficult and time-consuming to deliver sufficient funds for such work. There is also a need for entrepreneurial skills that many people do not have
- There are considerable difficulties in establishing, developing and managing a community based trust

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- The partnership and community control aspects of the project have helped deliver significant additional benefits. However, some organisations find partnership working difficult, with there being a tendency towards empire building

Awel Aman Tawe

Awel Aman Tawe (AAT) is a community energy project operating in the Upper Amman and Swansea Valleys in south Wales. It grew out of discussions at a Local Agenda 21 meeting and was formally established in 2000. It works with the community on four main issues:

- Creating warmer homes and improving health and well-being
- Generate power from local renewable sources to combat global warming
- Reduce fuel bills to combat fuel poverty
- Develop local skills and contribute to the regeneration of the area

The organisation is a limited company operating on a not for profit basis. It is managed by a Steering Group comprising local volunteers and partners, employs 7 staff and has an overall budget is around £200,000 per annum. Financial support being provided by EU Objective 1, DTI Community Energy Fund, the EST innovation fund, the Welsh Assembly, Neath and Port Talbot Council and Environment Wales.

AAT's first project was to consult the local community to see whether there was support to establish a community wind farm where all profits would be used to fund local regeneration initiatives. There was, reflected in an independent ballot of local people which had a 48.5% turnout, higher than that experienced in the general election in some areas.

The initial proposal was adapted to reflect the views of the local population, with a greater emphasis being placed on energy efficiency and on supporting a range of renewable technologies rather than just wind power.

Achievements

Energy

To date solar water heaters have been installed at three community buildings. Next year it is planned to install a solar photovoltaic roof on a local school, the largest installation of its kind in the UK. It is also planned to set up a biomass district heating scheme. Coupled with the work on renewables, AAT employs 2 energy efficiency advisers who are working to increase uptake of grants for loft and cavity wall insulation. They have advised over 1,000 people in the last year leading to the installation of around 250 such measures and also the distribution of 3,000 CFLs. The annual energy saving delivered so far is calculated at 845,311kWh/yr with the GHG saving estimated at 16 tonnes per annum

Wider

The project has created 7 jobs in an area of high unemployment and has provided skills training to 100 local people. It has generated £400,000 of income for the local community, with £100,000 being spent on local contractors. AAT is also a referral agent for Care and Repair, which helps fund measures such as mobility aids and also offers free benefit health checks.

However, the programme manager feels that one of the most significant impacts of the project has been in restoring local pride.

Key Lessons and Barriers to Progress

- The project demonstrates that there is huge potential to involve local people more in energy efficiency and renewable energy work
- Linking the energy work with existing community regeneration and development work has led to a joined up approach delivering a variety of economic, social, environmental benefits to local people

Healthy Homes Assessment Training Project

The Healthy Homes Assessment Training Project (HHATP) was established in 2001 with the aim of encouraging community based health and social care workers to identify poor housing conditions among clients. The health and social care staff are provided with

information on the negative impacts of fuel poverty on mental and physical health and on the grants and projects that can fund improvements in housing standards. Staff are encouraged to undertake home energy survey questionnaires with the people they visit.

The project is administered by Bristol Care and Repair and is funded by the two local Primary Care Trusts (PCTs). The project also involves Bristol Social Services, the Housing Service and the local EEAC. So far over 800 community-based staff have been provided with training.

Achievements

Energy

Though numbers are not quantified it is thought that the 800 trained staff are likely to have encouraged a significant number of vulnerable people to uptake grants and other means of improving their home energy efficiency. Staff are also promoting measures such as draught-proofing, CFLs, and energy efficient white goods.

Wider

Through the energy work the project will have led to the improvements in quality of life for vulnerable people and also helped with their mental and physical well-being. It has also led to greater awareness of energy issues among health and social care professionals and helped develop more partnership working between professions. Finally it has enhanced awareness of the major impacts of fuel poverty on well-being among senior managers in health and social care and it is hoped that this will lead to increased future funding for such initiatives

Key Lessons and Barriers to Progress

- Partnership working is vital to the delivery of the broad range of related objectives sought by health, social care and energy efficiency professionals
- Links with health and social care assists in the targeting of assistance at the most vulnerable in society

Community Health and Energy Awards Scheme

The Community Health and Energy Awards Scheme (CHEAS) was an innovative project aimed at tackling fuel poverty at a local level, targeting those households most at risk from cold related illness. It was run by National Energy Action (NEA) and funded by Powergen, Nottingham Health Action Zone and the Boots Charitable Trust and ran between 2001 and 2002.

The scheme aimed to tackle fuel poverty across the Nottingham Health District area by offering small grant awards to voluntary sector organisations to enable them to provide energy advice and services to vulnerable households. During the course of this project 8 Community Health and Energy Awards were made to voluntary and community organisations in Nottingham. Each CHEAS recipient organisation used the Award to plan and carry out an energy efficiency project targeting their most vulnerable service users and staff at each recipient organisation received a one-hour training course from NEA. CHEAS projects received ongoing support from NEA in the form of personal visits and telephone and e-mail contact.

Achievements

Energy

Through supporting the 8 community projects CHEAS has been able to encourage the uptake of grants for energy conservation work and the use of energy efficient appliances across the city. The project has provided energy training for each of the 8 community organisations in receipt of awards

Wider

Through supporting action on fuel poverty the project has helped improve comfort and cut fuel costs

Key Lessons and Barriers to Progress

- More needs to be done to get information and advice to disadvantaged people living in deprived areas, particularly ethnic minority communities
- Information which is not accessible is as good as none. British Sign Language users and speakers of other minority languages often miss out on information and advice, leaving them very vulnerable to fuel poverty. There is a need for information on grant

schemes and energy efficiency advice to be made available both in written minority languages and in a visual format which is accessible to deaf people, many of whom do not read English.

Winteraction Peer Group Advisor Scheme

The Peer Group Advisor Scheme offers an energy advice service in the home to older (over 55) and vulnerable residents of Newcastle upon Tyne. It is co-ordinated by NEA, launched in 1999 and is set to run until 2005, although further funding is being sought to continue beyond that point. The overall budget of the scheme is approximately £125,000 with financial support being provided by the Northern Rock Foundation, the Nationwide Foundation, Northern Electric and Gas, Help the Aged, Community Chest and SRB6.

Six volunteers are involved in the project and offer on average a half day per week to the scheme. The advice given covers inadequate or malfunctioning heating systems, poor insulation, the effective use of heating controls and fuel debt, as well as onward referral for benefit advice and grant referral. The volunteers are all close to or above retirement age and are all trained to a nationally recognised standard. The project also offers a Helpline for those who do not wish a home visit, for those under the age of 55, or who live outside Newcastle.

Achievements

Energy

To date the volunteers have referred around 400 households to grant schemes. The exact number and type of measures provided to those that were referred are not available as grant providers have not provided information to Winteraction

Wider Benefits

The project has help improve the health and comfort of clients. It has also utilised the skills and experience of the volunteers and given them a sense of usefulness.

Key Lessons and Barriers to Progress

- The project co-ordinator has received calls from people across the UK stressing the need for similar schemes to be started in their area. This will require more funding
- Funding also needs to be in place to establish hardship funds, assisting those who currently do not qualify for benefits or for energy grants
- The main strength of the scheme is that it provides a centralised point where people can access advice about energy, benefits and even advice about other issues

Energy Resources for Tenants

The Energy Resources project was established by ECSC in 2000 with the aim of supporting community organisations living in disadvantaged areas across England to develop self-help solutions and take action on fuel poverty and energy issues through community activity. The project grew out of earlier work ECSC had undertaken in London. They found that groups from across the country were contacting them to seek assistance, and realised that there was a nationwide demand for such assistance

The work was supported by £168,000 of from the National Lottery Community Fund and the project was overseen by a Steering Group comprising representatives of tenants groups. Support was targeted at tenants and residents associations through a range of events , training, networking and outreach work.

Achievements

Energy

The aim of the project was to build capacity in local groups and as such no direct energy data is available. However, there is a lot of evidence that the work has led to greater uptake of grants by those involved (both as individuals and as tenants groups) and also an increased awareness within the communities involved of the potential to gain funding to improve home energy conservation.

Wider

Overall 360 people from across England were provided with training. Apart from the direct benefit of awareness raising another benefit was the increased confidence of delegates in dealing with landlords and fuel companies over energy related issues.

Key Lessons and Barriers to Progress

- That tenant and community activists have a strong role to play in disseminating knowledge and awareness that can encourage the engagement required at community level to allow energy efficiency activity to occur.
- There is often a great deal of activity happening in communities but this may not be readily discernible through conventional quantitative monitoring processes. For example it is likely that the indirect beneficiaries of training 360 activists could be many thousands given that a single tenants representative could represent an estate ranging from perhaps 20 – 2000 homes.
- Whilst savings can be generated swiftly with CFLs and reinforced by other simple no/low-cost measures, getting significant consultation, strategic engagement and eventually appropriate investment into housing takes a great deal of time and project funding and timescales need to reflect this if real results are to be achieved.
- Energy efficiency and tackling heating bills and cold homes are useful motivating factors to encourage participation in broader regeneration programmes generally. As a consequence of their partnership with the National Tenants Resource Centre the project was able to access additional grants of £5000 for participating organisations towards the cost of community involvement.

Take Control

Take Control is a programme developed by NEA and aimed at young care-leavers, in particular those who are currently disengaged from training and education and are moving towards independent living. The project began with the development of an advice pack to assist the young people concerned, 2500 copies of which have been distributed throughout the north-east. A group of young people were consulted as to the usefulness of the pack, and appropriate changes made.

The successfulness of the advice pack prompted NEA to develop a one-day training course for advisors working with young people on a daily basis. The aim of the course is to give those people who work with young care-leavers on a day-to-day basis sufficient

knowledge and skills in energy issues. It is felt that this will open another learning avenue to young people with poor literacy/numeracy skills who may have been unable to use the pack.

The project was established in 2001 with a 3 year lifespan and with funding from Scottish and Southern and the Learning and Skills Council. It is hoped at present that funding to continue the project beyond this year, and to turn it into a national programme, will be secured.

Achievements

Energy

As this is an advice project, no data is available as to the uptake of energy grants or changes in energy use by the target audience. It has raised awareness of energy issues among those working with care leavers, the hope being that this knowledge will continue to have an impact in future years

Wider

The project has sought to engage with some of the most marginalised people in society, young care leavers, some of whom do not have adequate literacy or numeracy skills, helping to improve their lives.

Key Lessons and Barriers to Progress

- Young people must be involved in developing materials from the start if they are to be made effective
- To engage with marginalised groups, it is necessary to provide tailor made programmes that ensure that those who are unable to access information in the usual way are still informed

The NEA/Northern Electric Credit Union Project

The Credit Union project was a one-year scheme established by NEA and Northern Electric and running in 2001-2. The scheme sought to find a way for people without access to a bank account to take full advantage of the competitive fuel market. Members

saved an agreed amount at regular intervals with their Credit Union to cover their fuel usage and this was paid across to Northern Electric and Gas by monthly direct debit. The Project offered energy advice and energy efficiency grant referrals to members of the 2 Credit Unions participating in the study.

Achievements

Energy

The project is an advice project and no quantified data is available as to how many people went on to access grants

Wider

The scheme helped cut fuel bills and therefore reduce the living costs of credit union members

Key Lessons and Barriers to Progress

- Many people do not want to change their methods of payments even after being made aware of higher tariffs.
- The system was only running smoothly towards the end of the project therefore there was little time for the participating members to discuss the success of the scheme.
- People with existing fuel arrears may be unwilling to discuss these, even with the Credit Union volunteers.
- There was hesitancy in altering either payment method or supplier due to general bad publicity surrounding the competitive market

Village Energy Days

The Village Energy Days scheme was founded in 1999 by Daventry District Council and is still ongoing. It is a small project with an annual budget of just £4,000 per annum, with funding being provided by the Council through their HECA budget. The project seeks to raise awareness of energy conservation and renewables in villages across the Daventry Council area through the holding of

events located in each village. In advance of the events each household in the target village received an invitation to attend accompanied by an information pack. Work is also undertaken with community groups and schools to prepare for the day and all those who attend the event are given two free CFLs.

The events have proved very successful with around 20% of each village turning up to the events. Of these, 50% take up grants and energy efficiency measures.

Achievements

Energy

To date it is calculated that 1,500 loft insulation measures and almost 1,000 cavity wall insulation measures have been taken up as a result of the project. In addition 5,000 CFLs have been distributed and a number of other measures such as gas condensing boilers fitted.

Wider

Such events help to strengthen community bonds

Key Lessons and Barriers to Progress

- Early development work with the community is essential to ensure a successful event.
- Going into schools and local groups at least a month before helps to spread the word and increase attendance on the day
- Involving local school children in promoting the energy efficiency message is crucial as they have an important influence on adults
- Incentives, such as discounts and free low-energy light bulbs, are good crowd-pullers

Analysis of Data

Quantified Data on Benefits of Community Sustainable Energy Projects

Overall Project Characteristics

Table 2 (overleaf) outlines the general characteristics of the six case study projects in terms of their structure, resources and level of community and partner involvement. The table illustrates the great diversity that there is within the community energy sector. Some projects, such as Power Factory, have a high degree of involvement by local people in programme management. Other projects are primarily concerned with the provision of information to people, helping build their awareness of the potential to save energy.

The management structure of projects also takes a number of forms. Some are managed by limited companies created by the project partners to ensure a clearly defined role and remit for the project. Others are hosted by project funders or partners and provided with general support by them. The number of partners and the level of partner involvement also varies significantly.

Some projects have been established for a set time period while other are ongoing and are likely to provide a service to the community for the foreseeable future.

What is evident is that effective community based working is not based on any particular model. While there are certain issues that seem to affect many community based energy projects, as are explored in Section 14, the structure, scale and method utilised by CSEPs is defined by the specific aims of the project, the availability of funding and the willingness of different organisations and sectors to become involved.

Project	Degree of Community Involvement (Arnstein)	Size of Budget (per annum)	Lead Partner and delivery mechanism/ agent	Other Partners	Timescale (start/end date)
Working Herts	5	£750,000 – funding from project partners	Working Herts is a charity	Councils, Careers service, Learning and Skills Council (LSC), police, colleges and housing assns	Started 1997 - ongoing
Aberdeenshire	3	£60,000 – funding from Aberdeenshire Council	SCARF and Aberdeenshire Council		Started 2001 - ongoing
TECN	5	c£115,000 – funding by SEEBOARD	ECSC	SEEBOARD plc, Local Authorities, Primary Care Trusts	Started 2001 – under review at present
Ecodyfi	6	c£50,000 - European Regional Development Fund (ERDF), WDA, Powys County Council, Dulas and the Shell Better Britain Campaign	Dyfi Eco Valley Partnership, a Limited Company now managed by local people. Project delivered by company through the provision of support and grants	Those involved in establishing the partnership are: Powys and Gwynedd Councils, Centre for Alternative Technology, Welsh Development Agency (WDA), Snowdonia National Park	Started 2002 - ongoing
Power Factory	6	c£10million – United Utilities, European Objective 1	Based on Partnership between Arts Factory (a local community development trust) and United Utilities, an energy company. Delivered by Limited Company		Started 2002 – awaiting planning permission
OPEN	4	c£60,000 – North Somerset Council	Centre for Sustainable Energy. Delivered through education of older volunteers who then provide advice/home visits	North Somerset Council, CSV, older peoples' groups	Started 1998. Funding ceases 2003 but still ongoing in some form

Table 2: Characteristics of the Six Case Study Projects

The Energy Benefits of Community Sustainable Energy Projects

The quantification of the total energy benefits of CSEPs can in many cases be difficult or impossible to achieve. This is particularly the case where the focus of the project is to provide training or advice to the community or to key staff (such as health or social workers) who then incorporate energy advice into the general service they provide to their clients.

Other issues that prevent some projects from producing accurate figures include:

- The complexity and expense of assessing the overall energy impact of energy conservation work on each individual households energy consumption, particularly when working with specific sectors of the community who may use energy differently
- The fact that many projects involve referring individuals to third parties who actually provide the grants for installing energy measures. In some cases such organisations appear reluctant to provide data to others
- The difficulty in establishing how an individual was persuaded to uptake energy efficiency grants or to change their actions. It can often be that their decision to seek energy improvements was the result of the culmulative impact of a number of different influences

Despite these barriers to energy data, some of the projects highlighted in this report were able to provide either limited or quite detailed information, from which the wider energy and climate change impacts have been calculated utilising standardise data conversion factors developed by the Energy Saving Trust. These are set out in Table 3 overleaf.

What the data demonstrates is that CSEPs, employing a variety of approaches and working with a variety of communities, have delivered significant energy and carbon savings, which in turn have delivered financial benefits to the individuals and communities concerned.

Project	No. of insulation measures fitted to date	CFLs distributed to date	Renewable Energy Capacity installed/planned	Number of people provided with advice	Financial Saving (£/yr)	Total estimated Energy Saving (KWhr/yr)	Estimated Carbon savings (kgC/yr)
Power Factory			10.5MW				240,000
Working Herts	12,600	7,000			£3,103,680	48,942,600	3,057,200
TECN	1,308	6,300		4,000	£266,524	5,311,681	511,029
Bright Green Savers		14,000		3,500	£2,000,000	5,474,000	345,520
Awel Aman Tawe	250	3,000	Number of renewable schemes installed	1,000		845,311	
Dundee CEP		50,000		11,000	£684,000		
Village Energy Days	2,500	5,000			£213,530	7,579,500	786,485
GAP							25,678

Table 3: Quantified Energy Benefits of selected projects

The Wider Economic and Social Benefits of CSEPs

The projects outlined in this report illustrate a major strength of adopting a community based approach to energy issues over other means of promoting sustainable energy: namely that the projects often deliver significant socio-economic benefits to the communities they are working in.

Table 4 (overleaf) sets out the quantified non-energy benefits of some of the schemes highlighted within this report. Among the most significant of these are:

- Direct employment creation in project management and delivery
- The provision of training to staff in a variety of organisations to enable them to integrate energy conservation into their work
- The provision of work experience training to help groups with particular problems in accessing employment into work
- The linking of energy and benefits advice, leading to significant income increases for those on benefits or low pay
- The creation of new funding streams to support general community activity

In a wider sense, the considerable savings that energy conservation work can deliver to households provides significant new 'spend' within a community.

Project	Direct Jobs Created (FTE)	People Trained	Number of people provided with advice (pa)	People referred for benefit advice	Income generated for community (pa)	No of house surveys carried out
Aberdeenshire	2		334	Yes – no figures available	£10,868	
Dyfi Valley	2				£300,000	
Power Factory					£334,000	
Working Herts	14	600 (70% go on to full-time employment)				
TECN		650		Yes – no figures available		
Bright Green Savers	1	Yes, but no figures available	Yes, but no figures available			
Awel Aman Tawe	7	100			£400,000	
Dundee CEP	11	10		Yes, but no figures available		11,000
Hill Holt Wood	13					
Bristol Care and Repair		800				
ERT		360				

Table 4: Economic and Social Benefits of selected CSEPs

The Added Value of Adopting a Community Based Approach

The quantified benefits of CSEPs outlined in the previous 2 sections are augmented by a range of others, highlighted by the case studies and feedback from managers of the other projects detailed in this report, and explored in more depth through the Focus Group discussions. These factors help explain why a community-based approach was chosen over alternatives. The key aspects of the community based approach that help it to deliver effective programmes and projects are:

a. Home energy conservation work can be effectively linked to other improvements

The case studies and other projects highlight a number of instances where improvements in insulation or home energy efficiency have been linked to other work that has enhanced the property. Through providing a complete package of such work disruption is minimised and the overall costs are lowered. Specific examples of this include:

- **Working Herts** where an integrated approach has been taken with the installation of energy saving, water efficiency and home security measures. Linking energy work with other work has also been shown by Working Herts to help deliver energy improvements to people who may not otherwise have agreed to the work being carried out
- **Awel Aman Tawe** where sustainable energy work has served as a catalyst for more general community renewal
- **Aberdeenshire Energy Advice Project** where project staff have provided information to members of the public to help them access grants and support to meet non-energy needs. This has proved to be particularly effective in meeting the needs of people not adequately covered by the remits of existing health or social service providers

b. Community Based Sustainable Energy projects can help re-establish a sense of Community and care for the most vulnerable

Those running a number of the projects evaluated felt that a significant contribution of their work had been to improve the sense of community in an area and enhance the bonds between people, through, for example, creating opportunities for marginalised young people and bringing them into contact with elderly home-owners. Individuals examples of this include:

- **Working Herts**, where the project has supported this objective in two ways. Firstly, it has improved home comfort and security for many people, with a particular focus on the elderly and vulnerable. Secondly, it has given support and encouragement to excluded young people and helped restore their self esteem. The increased contact between elderly and young has helped overcome misconceptions each group has had about the other
- **OPEN** has drawn on the significant skills base of older people and encouraged them to become active again within their community. Such projects enable people to help give something back to others in their neighbourhood and also give the individuals concerned a new sense of purpose

c. Community based work is particularly effective at addressing the needs of Marginalised Groups

The evidence of the last few years is that, while enormous improvements in the average energy performance of many homes have been achieved, certain groups have been passed over by some mainstream energy programmes. Those involved in managing the projects featured in this paper attributed this to two key reasons:

- There was a tendency among some energy utilities to target the ‘easy wins’ i.e. those households where significant improvements in energy performance could be delivered cheaply and quickly
- That some groups in the community e.g. the young, minority ethnic communities or those leaving care were perceived as being less easily persuaded as to the benefits of energy conservation work

Community based projects have been able to address this issue through the design and implementation of programmes tailored to the needs of specific sections of the community. For example:

- **Take Control** has engaged young care leavers in a ways which they are likely to respond to, and has considered the specific needs of those with limited literacy skills
- **The Energy Care Network** has utilised the experience and knowledge of those such as social workers who are most frequently in contact with excluded members of society and are often trusted by them. It has also helped to identify gaps in the grant system that are available
- **Bright Green Savers** has produced promotional materials in Bengali to help raise awareness among the large Bangladeshi community in the area

d. Partnership working, if properly managed, helps add value to the project as a whole and to individual partners

Many of the projects featured in this report have been built on collaborative working between a number of organisations. The evidence is that this has enhanced the performance of the projects and organisations in a number of ways:

Better working within organisations – projects have, through making the links between energy issues and other aspects of the work of a Local Authority or Health Trust, helped encourage new partnerships and cross-departmental working within organisations

- **The Energy Care Network** has, through the involvement of different departments of Local Authorities, fostered a closer working relationship and integration between different services

Improving the effectiveness of individual staff – community projects that seek to train staff in other organisations to address fuel poverty contribute to the performance of a more integrated and effective service by those staff:

- **The Energy Care Network**, through training social and health workers about energy issues, has enabled them to deliver a more integrated and effective service to their clients. TECN has also shown that the personal relationship that health and social care staff have with their clients means that they are more likely to recognise those most in need, and be better able to persuade those individuals to seek help
- **The Healthy Homes Assessment Project** has, through working with social and health care professionals, helped to build their capacity and raise awareness of issues that impact on their clients well-being

Pooling financial resources – Another crucial element of partnership working on energy issues has been to draw together different funding streams to help deliver a significantly larger budget for energy improvements than would otherwise have been the case. The examples outlined in this report have shown Single Regeneration Budget, New Deal and European funding all being utilised in this way.

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- **Ecodyfi** has drawn together a wide variety of funding sources, creating a significant new budget to be used for projects that benefit the community

Utilising the knowledge and expertise of those in the area -projects have demonstrated that there are significant numbers of people in every community who are either actively involved in action to improve their area or who would like to contribute. By tapping in to this potential, and convincing key community activists that energy issues should be an important element of their work, a far larger number of people in an area can be contacted than would otherwise be the case.

- **Older Persons Energy Network** highlighted the need to recognise the skills and experience of volunteers and ensure that such people are given a level of respect and responsibility commensurate with their experience

e. Building local awareness of energy and fuel poverty issues can help promote long term awareness and behavioural change

There is much evidence from the community projects evaluated that face-to-face discussions and awareness raising, and the involvement of people in energy projects, can lead to longer term behavioural change, helping to reduce energy use in the longer term.

- **The Dundee Community Energy Project** has found that many in the community can, through a change of circumstance, slip back into fuel poverty. Increasing their awareness of the help that is available ensures that uptake of grants can continue after projects have ceased to operate
- **Energy Resources for Tenants** is also likely to result in longer-term change in behaviour and awareness than would be expected through leaflets or advertising campaigns

f. Community involved in projects can develop skills that can lead to wider skills development

Many CSEPs have help provide the local people involved with a range of new skills and areas of expertise. These new skills have been diverse, including project management, finance and budgeting, law, awareness of funding streams, team-working or personnel management. All such skills are extremely important in helping build the long-term ability of communities to look after their own affairs, and are likely to help contribute to the effective running of future community based ventures in energy and non-energy work.:

- **Working Herts** has helped many of the young people involved in the scheme to go on to further training and personal development, inspired by the confidence given to them by the project

The Barriers to Effective Community-Based work

The projects set out in this report illustrate a range of benefits to adopting a community-based approach. Those involved in the featured projects have also highlighted a number of barriers to the effective running of community projects. These are:

a. Project Administration

Some of the projects felt that administration could be burdensome. This was particularly the case where the project was formed through a partnership of a number of different organisations, each with their own project administration system and each with their own auditing procedures.

While, as noted in the previous section, partnership working is overall a great strength of much community based energy work, there was also a feeling that the potential delays caused by negotiation between partners at the inception of a project needed to be better factored into timescales and business plans.

An associated problem, is that where there are a number of organisations involved in programme delivery, rigorous management systems have to be put in place to ensure that there is a clear overall appreciation of the programmes operation and any problems are identified and acted upon speedily.

Finally, organisations working with volunteers, such as OPEN, suggested that it was essential that adequate support was provided to them to ensure the long term viability of such schemes. Given the fact that such projects rely on individual good-will and commitment, and that there are a range of alternative organisations individuals might be interested in volunteering for, a lack of adequate support could result in volunteer staff losing interest in the project.

Tension between competing aims and objectives included:

- **Working Herts** identified the programme management requirements of some UK government and European programmes as overly demanding for small, community-based organisations
- **The Energy Care Network** found that at first there was a tendency to try and engage too many people rather than focus on an effective and manageable number of the most enthusiastic staff. The project has also identified a need to ensure that proper management systems are in place to track the uptake of energy advice and measures
- **Global Action Plan** found that a considerable effort was required to standardise procedures and ensure that processes are acceptable to all project partners

b. Ineligibility of people in need for grant funding

Several projects highlighted the fact that some in the community who were clearly suffering fuel poverty were not eligible for any of the main grant programmes.

- **Dundee Community Energy Partnership** found that a majority of those in fuel poverty could not be assisted except through measures to enhance their income
- **The Energy Care Network** also identified a number of clients who were ineligible for any grant programme but were in real need

c. Accessing Legal and Financial Advice

Some of the projects, most notably those involved in renewable energy development, highlighted problems they had encountered in securing the level of legal and financial advice required to enter into a long term partnership with a private firm. The usual sources of community support were not felt to be adequate for the scale and complexity of the project in question, and securing quality advice was both expensive and time consuming.

- **Hill Holt Wood** project co-ordinator highlighted the need for support in developing entrepreneurial skills
- **Power Factory** has found it difficult to access affordable and high quality legal advice

d. Data Collection

Many of the projects consulted as part of this research identified the accurate quantification of energy savings to be a significant problem, particularly in projects that are involved in providing advice and raising awareness. While such figures could be determined through more detailed research, projects find that they simply do not have the resources to undertake such work.

- **Bright Green Savers**, through which volunteers provide members of the community with advice, highlighted their inability to quantify the gains achieved
- **The Energy Care Network** has encourage behavioural change but this has proved difficult to quantify

e. Limits to the involvement of volunteers

A number of the featured projects have relied to a greater or lesser degree on volunteer workers. As is highlighted in the previous section, there are great benefits in involving volunteers. Many have a great deal of local knowledge and a wider range of skills that they can contribute to a project. However, some of the projects evaluated for this research spoke of the need to avoid over-relying on volunteers, many of whom have significant other commitments and responsibilities.

Such commitments can mean that it can be difficult to run medium or large-scale projects on a voluntary or even partial voluntary basis. In such circumstances there is a need to seek proper funding or outside support (from the public or private sector) to ensure the project is effectively managed and delivered.

- **The Older Persons Energy Network** identified that there is a limit to the amount of time that volunteers can be expected to put into projects. It is also the case that, for older people, a point may be reached where they are not able to continue working

Overcoming Barriers to Community Sustainable Energy Work

Despite the many successes delivered by CSEPS, the research indicates that some further action is required to ensure that the effectiveness of community based energy projects is maximised. Addressing the issues raised by the community projects evaluated for this report necessitates action by both Government and the Energy Saving Trust.

i. Action by Government

While it is understood that rigorous management and auditing systems are necessary to ensure effective project delivery, it does appear that many community organisations struggle to meet some of the requirements set for certain funding programmes. In addition, the different management and auditing systems required for different funding sources created significant problems for community groups.

- ***To address this, it is recommended that National Government undertake a review of auditing requirements for all community funding programmes, both for energy and wider work, with the aim of simplifying and standardising procedures***

Another issue that emerges was the fact that many people in Fuel Poverty were ineligible for any of the main financial support programmes. This is clearly a significant barrier to local energy work and also to the Government's stated aim of ending Fuel Poverty.

- ***It is therefore recommended that a review of funding should be undertaken with the aim of ensuring that all those in need of energy conservation measures are provided with appropriate support.***

ii. Action by The Energy Saving Trust

The most significant support for Community Sustainable Energy Projects is provided by the Energy Saving Trust through the CAfE network and other schemes such as the Local Authority Support Programme (LASP). These programmes offer a range of assistance for community organisations, helping them build capacity and raising awareness of the potential for innovative work at the local level.

The research demonstrates the need for such support, and indeed indicates that it should be extended. Particular issues that CSEPs require more assistance with are:

1. Data collection
 2. Legal advice and financial systems
 3. Project management
- ***It is recommended that the EST review the current level of support offered to Community Sustainable Energy Projects and consider ways in which such support can be enhanced in the future, with particular reference to the three priority areas identified***

Conclusions

This report has sought to analyse the broad range of initiatives that could be defined as Community Sustainable Energy Projects. The case studies and other projects demonstrate the great diversity of this work, and the wide range of energy and other economic, social and environmental benefits arising from such an approach. These wider benefits are summarised in Table 6.

Employment and Skills	<ul style="list-style-type: none"> • Direct Job Creation • Provision of Skills to enable employment in Energy Efficiency work • Provision of transferable skills to increase general employability
Education	<ul style="list-style-type: none"> • Formal education in schools, colleges and universities • Community based education or awareness raising
Economic Benefits	<ul style="list-style-type: none"> • Connection to wider community regeneration • Provision of additional funds for the community • Reduction in Fuel Bills enabling greater local spending power • Impact of direct spending on local contractors
Health	<ul style="list-style-type: none"> • Direct physical health benefits of reducing damp, cold and condensation • Wider health benefits (physical and mental) of home comfort
Empowerment	<ul style="list-style-type: none"> • Direct empowerment brought about by involving people and demonstrating what can be achieved • Encouragement to become more widely involved in general community affairs • Taking control of the energy used by the community
Environment	<ul style="list-style-type: none"> • Wider environmental improvements e.g. water conservation • GHG emission reduction

Table 6: Summary of Non Energy Efficiency benefits of Community Sustainable Energy Projects

Despite the great diversity of such projects in terms of the issues they address, their scale, their structure and partner involvement and their methodology, it is apparent from those consulted as part of this research that three more general conclusions can be made about the benefits of Community-Based Sustainable Energy Projects:

a. A Community Based Approach can assist in effective project delivery

The evaluation of the projects highlighted in this report has highlighted six ways in which work at the community level can promote effective project delivery. These are:

- Integration of Energy work into wider housing improvement and neighbourhood renewal
- Community Based Sustainable Energy projects can be a mechanism through which local contacts and a sense of community can be strengthened
- Community based work is particularly effective at addressing the needs of Marginalised Groups
- Partnership working, if properly managed, helps add value to the project as a whole and to individual partners
- Involving the community can increase the likelihood that energy efficiency and renewable energy policies are accepted
- Building local awareness of energy and fuel poverty issues through direct engagement can help promote long-term behavioural change and also ensure people continue to access support when required

Together these amount to a significant set of advantages that a community based approach offers over alternatives.

b. The Community Based Approach is likely to become more necessary in coming years

It is likely that demand for such an approach will grow over the coming years, particularly given the stringent new targets being set for energy utilities through the next Energy Efficiency Commitment (EEC2) and the need for many Local Authorities to make further progress towards their HECA targets. Both these factors, matched by the fact that much of the most easily accessible housing stock has already been fitted with insulation and other energy conservation measures, is likely to necessitate action to tackle the fuel poverty of 'hard to reach' groups. A wider adoption some of the approaches highlighted by the community projects analysed for this report would seem an obvious means of achieving this aim.

Another mechanism through which community energy work could be significantly expanded in the future is through Community Planning, Local Strategic Partnerships/Community Planning Partnerships and other mechanisms through which Local Authorities are encouraged to adopt a community leadership role and enter into partnerships to promote the 'Well-being' of their community. Examples of where this has occurred are highlighted in the recent *Guidance on the Role of Community Partnerships in Sustainable Energy Issues* report prepared for the EST.

c. Despite the variety of CSEPs, there are common factors that can be replicated by all such projects

The projects evaluated for this research serve to highlight the great variety of sustainable energy work being undertaken in communities across the UK. Each of the projects has come into being by a different route, whether it be due to action by local people or an initiative developed by another stakeholder such as the Local Authority, an energy utility or a Neighbourhood Renewal body. The overall approach taken also varies significantly, in terms of management structure, community engagement and outcomes. Despite this, certain common success factors can be identified, and should be taken on board by all individuals and organisations seeking to promote energy conservation and sustainable energy in their area. These factors are

- The community must be at the heart of any locally based work. Where possible and practical, the community should be consulted before the project is established and involved in project management. Where this is not a realistic aim (for example where the capacity is not available in the community) then the project should still be designed to respond to the needs of all those the project serves. Rooting a project within a community, as the examples in this report demonstrate, can harness and build on the enthusiasm of local people
- Projects need to be of an appropriate scale and have a clearly defined purpose and strategy
- Projects should avoid excessive bureaucracy and have a clear management structure. While there is no one framework that is appropriate for all projects, it is vital that the ***right*** framework is employed. The EST's CAfE network can advise community organisations on this
- Providing a high quality service that responds to individual needs ensures that project aims are more effectively delivered.
- It can take a significant amount of time to build awareness of a project and short-term and temporary approaches are unlikely to bear fruit. From the start, it should be ensured that adequate funding and resources are in place

-
- Project managers need to ensure that all staff, and particularly frontline staff or volunteers, are offered decent working conditions and an appropriate level of support

In conclusion, community-based sustainable energy projects have helped deliver a broad range of benefits to the communities in which they have operated. If properly supported and structured they can help deliver a much more significant element of action to tackle Fuel Poverty, profligate energy use and climate change, while at the same time as delivering a wider set of benefits.

To ensure that the community energy sector is able to help capitalise on the new opportunities outlined above, and to overcome the various barriers to progress highlighted in the previous section, it is essential that appropriate support is provided. Through the CAfE network and other initiatives such as the Local Authority Support Programme (LASP), the Energy Saving Trust has a particularly important role to play. In addition to such programmes, the creation by the Trust of Sustainable Energy Centres offers a new mechanism through which work of this type can be promoted and the specific impediments to wider and more effective community energy work tackled.

Taking on board these factors, there is enormous potential for far greater work at the community level around sustainable energy. As this report illustrates, the benefits of CSEPS, to the community, to the organisations and individuals involved, and to wider society, can be very significant indeed.

Appendices

APPENDIX 1: Classification Matrix for Community Based Energy Efficiency Projects

Main non-energy efficiency benefit	General Profile of Project								
	Type of Community	Degree of Community Involvement*	Location (Rural or urban)	Socio-economic profile of target group*	Size of Budget***	Timescale (start/end date)	Lead Partner and delivery mechanism/ agent****	Other Partners	Funding Sources (specify)
Employment and Skills									
Education and Awareness									

Economic Benefits									
Health									
Empowerment									
Environment									

* Based on the 8 steps of the Arnstein Ladder of Community Participation

**Use index of deprivation figures

***Four size categories are outlined in Section 6

**** 'Delivery Mechanism' refers to key individual(s) who are responsible for supporting the project (e.g. health worker, HECA staff, youth worker, community activist, utilities staff) and the means through which they engage the community (e.g. workshops, training)

Main non-energy efficiency benefit	Additional Economic, Social and Environmental Benefits of Project								
	Energy Benefits (category)*	Energy Saving	CO2 saving	Employment and Skills benefit	Education & Awareness	Economic benefit	Health	Empower-ment	Environ-ment
Employment and Skills									
Education and Awareness									
Economic Benefits									

Health									
Empower-ment									
Environment									

*Is the project involved in physical energy efficiency measures (e.g. installation of CFLs or insulation), behavioural change or renewable energy/CHP development?

APPENDIX 2: Community Sustainable Energy Projects: Data Collection Proforma

1. General Information on the Characteristics of the Project	
Project Name	
Address and Contact Details	
Name/Job Title of Project Co-ordinator	
Name and Job Title of person being interviewed (if not Project Co-ordinator)	
Lead Organisation in Project	
Type of Organisation (1)	
Main Aims/Motivating Factors (2)	
Location (Scotland, Wales, Northern Ireland or Region of England)	

Type of Community (Urban/Rural/Mix)	
Population of the Target Audience	
Scheme Start Date	
Scheme Finish Date (if project has not yet been completed, please provide estimated finish date)	
Funding Sources and amount from each source	
Overall Budget of Project (and per annum if available)	
Partners in Project (please list)	
Please provide a brief (200 word) summary of the project	

2. Level of Community Engagement	
Target Audience for Project (e.g. a specific age group, socio-economic group, ethnic group)	
How was Project promoted to the Target Audience (please list ways in which this was done)?	
Was the Community consulted about the project before it began? How?	
What members of the local community have been involved in the project at (i) a management level and (ii) with regard to project delivery?	
Level of Community Involvement in Project (as defined by Arnstein's Ladder)?	

3. Energy Benefits of Project

What, in general terms, have been the main energy benefits of the project?

What, if any, were the specific energy efficiency/conservation and renewable energy measures taken/installed as part of the project? Please list the types of measures taken and the number of such measures installed:

Measure Taken	Number of Such Measures installed
(a) Insulation Measures	
Loft Insulation	
Draught Proofing	
Cavity Wall Insulation	
External Wall Insulation	
(b) Heating Measures	
Room Thermostats	
Thermostatic Radiator Valves	
Central Heating	
Condensing Boilers	

Storage Heaters	
Solid Fuel Fires (local fuel)	
(c) Appliances	
Energy Efficient White Goods (e.g. fridges)	
Energy Efficient Brown Goods (e.g. TVs)	

(d) Lighting	
CFLs (Low Energy Bulbs)	
Luminaires	
(e) Glazing	
Low Emissivity Glazing	
Double Glazing	
Secondary Glazing	
(f) Behavioural Change or No-Cost Measures	
Improved Energy Awareness	
Closing Curtains	
Draught Excluders	

Adapting Heat Controls	
Green Tariffs	
(g) Renewable Energy	
Combined Heat and Power	
District Heating	
Photovoltaic Panel	
Solar Water Heating	
Wind Power	
Other (specify)	

Did you seek to generate referrals to specific energy related grants and schemes? If so, please list them and state number of referrals

Scheme	Number of Referrals
Local Authority Grant Funding	
Warmfront/Warmzone	
Energy Efficiency Commitment (EEC)	
Other (please specify)	

Did your project seek to provide advice? If so, how was that advice provided (please provide as much detail as possible)?

Did your project involve the provision of training? If so, who received this training?

If any, how many people were trained in total?

Have you collected any data as to the total energy savings achieved by the project as a whole or by individual elements of the project? (Please provide as much data as possible)

Have you calculated the overall Greenhouse Gas (GHG) savings brought about by the project?

Can you provide any other information as to the energy benefits of the project?

4. Non-Energy Benefits of the Project

What would you say was the main non-energy benefit of the Project? (if more than one, please list)

For each of these benefits, please provide any quantified data on benefits (e.g. number of training places provided, number of people helped back into work) next to the appropriate section below

Non-Energy Benefit	Number achieved
(a) Employment and Skills	
Direct Jobs created	
Provision of skills training to enable employment in energy efficiency work	

Provision of transferrable skills to increase general employability	
(b) Education	
Formal education in schools, colleges or universities	
Community based education or awareness raising	
(c) Economic Benefits	
Reduction in fuel bills for local residents	
Provision of additional funding for the community	
Impact of direct spending on local contractors	
Impact on wider community regeneration	

(d) Health	
Direct physical health benefits of reducing damp, cold and condensation	
Wider health benefits (physical and mental) of enhanced home comfort	
(e) Empowerment	
Direct empowerment or involvement of people in project	

Increase in general interest in community affairs	
Increase in desire to control the community's energy supply	
(f) Environment	
Wider environmental improvements resulting from work (e.g. water conservation measures, biodiversity)	
(g) Other	
Any other benefits resulting from work (e.g. crime reduction)	

Overall, what were the main lessons that were drawn from the project?

THANK YOU FOR YOUR HELP

Notes on completing the form

(1) List organisation as Community Trust, Local Authority, EEAC, Energy Utility, SRB/Regeneration Body, Enterprise Company, Regional Government, National Government (including Scottish Parliament, Welsh Assembly, Northern Ireland assembly), NGO, University, Government Agency, Other (please specify)

(2) List the key outcomes intended from the work e.g. 'to improve the SAP rating of homes in the estate by 20%', 'to create new employment in a socially excluded area', 'to reduce average fuel bills by 20% and remove 500 people from Fuel Poverty

APPENDIX 3: References

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