

GreenHeat

Powys Energy Agency, Wales, UK

Summary

GreenHeat is a support package for renewable energy in rural Wales and specifically for small and community scaled/owned schemes. Its overall technical and funding advice and information service and feasibility fund covers rural Wales. The capital fund is available to projects in Powys.

It is co-ordinated by Powys Energy Agency through two full time employees, support of the Executive Director; and working with Ecodyfi and the Centre for Alternative Technology.

The package is available to anyone interested in developing a RE project and in regard to any RE technology. Innovative wood based systems are particularly encouraged.

On going promotion of GreenHeat has been essential, it took 6 – 9 months for the concept of the support available to become widely known and appreciated. Since then there has been an increasing number of enquiries, request for consultancy and for capital support. It is clear that there are many projects that people would like to see to fruition in the domestic, public and community sectors. The availability of hand-holding support, advice and funding is required to do this. As the first of its kind, GreenHeat and Powys Energy Agency was able to work with some projects which had been just ideas for many years.

End-user area	Target Audience	Technical
<input type="checkbox"/> New buildings	<input type="checkbox"/> Citizens	<input type="checkbox"/> Energy efficiency
<input type="checkbox"/> Refurbishment of buildings	<input checked="" type="checkbox"/> Households	<input checked="" type="checkbox"/> Heating
<input type="checkbox"/> Transport and mobility	<input checked="" type="checkbox"/> Property owners	<input type="checkbox"/> Cooling
<input checked="" type="checkbox"/> Financial instruments	<input type="checkbox"/> Schools and universities	<input type="checkbox"/> Appliances
<input type="checkbox"/> Industry	<input type="checkbox"/> Decision makers	<input type="checkbox"/> Lighting
<input type="checkbox"/> Legal initiatives (municipal regulations, directives, etc)	<input checked="" type="checkbox"/> Local and regional authorities	<input type="checkbox"/> CHP
<input type="checkbox"/> Planning issues	<input type="checkbox"/> Transport companies	<input type="checkbox"/> District Heating
<input checked="" type="checkbox"/> Sustainable communities	<input type="checkbox"/> Utilities	<input checked="" type="checkbox"/> Solar energy
<input checked="" type="checkbox"/> User behaviour	<input checked="" type="checkbox"/> ESCOs	<input checked="" type="checkbox"/> Biomass
<input type="checkbox"/> Education	<input type="checkbox"/> Architects and engineers	<input checked="" type="checkbox"/> Wind
<input type="checkbox"/> Other	<input type="checkbox"/> Financial institutions	<input type="checkbox"/> Geothermal
	<input checked="" type="checkbox"/> Other	<input type="checkbox"/> Hydro power
		<input type="checkbox"/> Other

Context

GreenHeat developed from a project in the Dyfi Valley managed by Ecodyfi, an independent community organisation. The project, a funding package for small and community scaled projects in West Powys, ran for three years and enabled domestic scaled solar, hydro and wood based systems. It was also involved in one of the UK's first community initiated, owned and managed wind turbine projects. This project identified a demand for RE project support on a geographical wider scale from technical advice to help with early project development to capital funding and so the GreenHeat

package was developed. It is available to anyone interested in RE. Restrictions on support (capital funds are for Powys only through this project) are due to ERDF and Local Authority requirements. Combining these elements in an integrated way was essential to fast-tracking renewable energy in the region. Ecodyfi continues to provide support for the Dyfi area. Sources of funding are EU programmes ALTENER (information line and feasibility fund) and ERDF Objective 2 / Transitional; the Welsh Development Agency, Powys County Council, Centre for Alternative Technology, Forestry Commission and Countryside Council for Wales.

Objectives

GreenHeat aims to reduce dependency on fossil fuels, reduce carbon dioxide and other emissions associated with use of fossil fuels, support local RE and related businesses and encourage local ownership of projects by encouraging appropriately scaled sustainable energy projects in Wales. The name of GreenHeat places an emphasis on providing heat from renewable energy technologies, although the service itself also supports RE generation of electricity. The name was selected to help prioritise the provision of heat from RES. This is because Powys is already relatively well endowed with renewable electricity but the renewable heat market is relatively dormant and needs stimulation and prioritisation.

These aims are being achieved through:

- ❑ Provision of advice and information via telephone and e-mail lines, website and availability and presentations at public events, shows, etc;
- ❑ Provision of technical and grant funding information, contacts for system supplies, installation and fuel supplies (e.g. wood pellets) as well as general encouragement;
- ❑ Co-ordination and availability of funding towards consultancy and feasibility studies;
- ❑ Co-ordination and availability of funding towards capital and installation costs of small and community scale renewable energy projects;
- ❑ Working with individuals, public bodies and businesses to raise the profile of renewable energy and strengthen other parts of the RE industry, such as fuel supply.

Process

The concept of GreenHeat developed from an enthusiasm and remit to encourage renewable energy developments in Powys and the rest of rural Wales. Mid Wales already has an increasing collection of RE projects and dedicated businesses and organisations (e.g. the Centre for Alternative Technology). However, bodies such as Ecodyfi, Powys Energy Agency and Powys County Council, which is the only Council in the UK to have signed up to the EU's Campaign for Take-Off, felt more could be done. They identified a need for support in terms of technical advice and hand-holding through projects, as well as financial support for project development and implementation. EU funding programmes of ALTENER and Objective 2 fulfilled these needs.

The aim of GreenHeat is to support RE project developments where possible, some support is restricted to small scale and community projects while other support, such as the advisory line is available to anyone. Restrictions are based on funders' requirements rather than PEA policy. At the beginning of the project there was little support for small scale, domestic and public sector projects. GreenHeat offers some of the first integrated support to these sectors in rural Wales.

The key, initial contact with GreenHeat is via the information and advice line. Following discussions with the other sustainable energy information bodies in Wales, in autumn 2002 the advice line became nationwide and known as REAL Cymru (Renewable Energy Advice Link for Wales). REAL Cymru bodies work to provide advice on sustainable energy through one number (0845 330 4940)

and website (www.realcymru.org.uk). People contacting REAL Cymru will get through to their most geographically local organisation. This new, all-Wales RE advice line is considered as one of GreenHeat's successes, though it could only have been achieved through establishing a broad working partnership.

These initial meetings and voluntary establishment of REAL Cymru effectively triggered on going exchange and communication between like bodies. This has led to other collaborative projects and laid the ground for an effective future.

Promotion has played a key part in GreenHeat to initiate enquiries and ensure people are aware of the services. A number of information sheets – 'Renewable Energy Sources', 'Home Heating with Renewable Energy', 'Home Electricity from Renewable Energy and Renewable Energy on Farms' and a bilingual booklet on wood-fuels have been produced. These have proved most popular.

GreenHeat has its own display boards and these, with officers have been present at two Royal Welsh Shows (2002/2003) and over twelve other events. It has also been promoted through leaflet distribution, newspaper articles, businesses and partner organizations, mailings and presentations at meetings. It has its own website (www.greenheat.org.uk) with links to others such as PEA, Rural Heat Conference and also to a proposed 'wood-energy- in-Wales' portal.

A productive aspect of GreenHeat and the renewable energy sector in Wales over the past two years has been the increase in communication and partnership working. There has been inter-, and cross sector working, as well as cross-county and cross-country exchange of information and experience. Projects range from Energy Agency developments to working with the agricultural sector on anaerobic digestion technologies.

The advice, feasibility and implementation aspects of GreenHeat has contributed towards safeguarding existing jobs, created 2 full-time jobs and enabled an investment of € 1,888,731 into renewable energy in Wales.

Financial resources and partners

EU fund	@	= total investment	Funding sources	Supporting
€ 234, 914	50%	€ 487, 270	(TAPARES) ALTENER, FC, CAT	Technical advice Feasibility fund
€ 490, 407	40%	€ 12,260,17	ERDF Objective 2, WDA, CCW, PCC	Funding information Capital fund
€ 46, 577	40%	€ 116, 444	ERDF Transitional Area funds	Funding information Capital fund
€ 27, 000	50%	€ 54, 000	(PROWE) ALTENER, FC	Wood-fuel specific In-depth feasibility
€ 798,898	-	€ 1,883,731	-	-

Partners

- ❑ **Powys Energy Agency:** Applicant and co-ordinating body of GreenHeat projects;
- ❑ **Ecodyfi:** Supporting GreenHeat with advice, promotion, working on projects and specific to the Dyfi Valley of Powys, Ceredigion and Meirionnydd;
- ❑ **JSP, Central Finland:** Partners on TAPARES & lead body on PROWE projects;
- ❑ **ESV, Upper Austria Energy Agency:** Partners on TAPARES & lead body on PROWE projects;
- ❑ **Centre for Alternative Technology:** Providing desk space, combining resources with PEA and on project development.

Results

To date the advice line has received 380 recorded enquiries, of which 280 were from householders, 52 from not-for-profit organisations (including schools and local authorities) and 46 from small-to-medium enterprises, including farms.

Of the 380, 243 were wood-related (125 to pellets), 55 solar water heating, 44 photovoltaic related enquiries, 39 hydro, 37 wind enquiries, 3 passive solar enquiries, 5 anaerobic digestion and 35 general renewable energy enquiries.

Overall GreenHeat funding resources have:

- ❑ Supported 38 feasibility studies. These range from a morning consultancy to involvement in £ 45,000 feasibility study;
- ❑ Enabled the completion of 17 renewable energy installations in Powys (more to come). This equates to the generation of 579 kW from innovative wood systems (for heating), 11.4 kW from heat-pumps, 76.30 kW from photovoltaics and 5.7 kW from wind making a total of 672 kW installed capacity;
- ❑ Worked with domestic, public, business and community sectors on various projects.

The benefits of GreenHeat include:

- ❑ Assisting the development of a wider wood energy services company or network and, through their employment as an ESCO providing opportunities for them to increase skills base and experience;
- ❑ Demonstration and trial of innovative schemes including community heating project, public sector renewables and innovative wood-heating systems;
- ❑ Providing an opportunity to assess the economic, technical and market feasibility of offering heat through wood-based community heating systems;
- ❑ Provide a focus for community activities;
- ❑ Help to empower individuals and communities to develop projects;
- ❑ Give an opportunity for individuals to have a measure of control over and profit from a project in their locality;
- ❑ The creation of sustainable local employment;
- ❑ Local and global environmental benefits offsetting CO₂ emissions;
- ❑ Greater security of supply and cost of heating fuel (compared to oil / gas);
- ❑ Benefits the local economy by keeping fuel money circulating locally;
- ❑ Sustainable exploitation of primary local resources such as wood and agricultural products.

Lessons learned and repeatability

Positive points

- GreenHeat offers a complete support process for those wishing to explore and develop renewable energy projects in rural Wales. It has been able to offer general advice for those just wishing to discuss potential ideas right through to supplying consultant information and funding for feasibility and installations in some areas. It has also been able to raise awareness of sustainable energy through supporting the implementation of a variety of projects, and having a presence at events and meetings. These have supplied people with general information as well as given an opportunity to talk face to face about issues of sustainable energy
- UK targets and general growing impetus and demand for renewable energy support along with a positive association, and anticipated economic growth in regard to renewables has initiated bodies to work together. This has made economic use of resources, avoided duplication, given strength to the RE sector in Wales and created a productive and creative environment and sector in which to work.

Considerations for the future

- There has been a lack of equivalent resources to invest into encouraging / enabling more energy efficiency, this is in part due to the emphasis on RES by Altener. In current applications support for energy efficiency has been incorporated, where eligible.
- Promotion is on-going and through different media. It needs to be on-going to maintain the profile and ensure that people are aware of where to go for information when they are ready. It also takes time for support mechanisms to be recognised by e.g. RE businesses and encouraging their own clients to make use of available support.
- There are missing links within the RE sector of Wales. Efforts are being made to develop the weaker links of renewable energy in Wales. This includes formalizing strategies, clarifying and building on Welsh Assembly commitment to RE and sustainable development, training and increasing skills and availability of skilled people, fuel supply (choice, consistency, competitive pricing, close to source) and industry development costs; as well as end-user support.
- The project timescale has been two years (due to the EC's ALTENER programme timetable). In retrospect this is insufficient due to the time taken for RE projects to develop to be confident enough to go to implementation. In addition there is enough current, and increasing interest to easily justify the continuation of GreenHeat for much longer.

Contact for more information:

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