

West Wales Eco Centre Renewable Energy Advice Service (REAS)

Final Report

Introduction to the new post

The new post of Renewable Energy Technical Advisor, funded primarily by Pembrokeshire Coast National Park Sustainable Development Fund and Esmée Fairbairn Foundation commenced on the 15th October 2007.

The service was set up to provide: free, professional, impartial advice on renewable energy technologies to those living within the jurisdiction of the Eco Centre; to promote awareness of renewable energy technologies for the home, community groups and small commercial sectors, and; to provide site visits as necessary to addresses within Pembrokeshire Coast National Park. Additionally, assistance with Low Carbon Buildings Programme (LCBP) and other grants was offered to eligible applicants.

Post-Specific Objectives

A number of objectives were agreed for the post to meet. These included:

- 1250 householders and/or communities advised per year, including community groups – average of 25 per week
- 50 site visits per year, including communities – 1 per week
- 15 LCBP grants applied for
- Increased and improved communication with installers – to indicate sector growth and demand for training
- Follow up any advice given
- To evaluate and quantify the social and economic impact installed measures have had
- Demonstrating to the Welsh Assembly Government (WAG) of the need for, and value of, the Renewable Energy Advice Service (REAS) and support for communities in increasing the number of renewable energy installations, and thereby;
- Gaining commitment from WAG for ongoing support

Achieving Set Objectives

To generate awareness of, and interest in, the REAS press releases were produced for local newspapers and a booklet was developed to be bundled with planning application packs within the National Park.

Main Achievements: October 2007 – October 2008

- 1,575 individuals advised – 26% more than targeted
- 38 site visits completed, including office based visits where in some cases there was no property yet developed to visit, or where travelling to the clients home was not necessary – 76% of target
- *Empowering Yourself: A guide to domestic renewable energy systems* – a booklet introducing renewable energy technologies for the home. This publication was produced to go out with planning application packs and to be handed out at local shows and events. The booklet has been very well received by the Pembrokeshire Coast National Park, the public and Jane Davidson AM
- 3 talks given
- 11 shows and events attended
- Factsheets covering renewable energy technologies and how to determine the most suitable types of system
- Off-Grid Photovoltaic system guide: using worked examples to teach people how to design their own off-grid PV systems
- Development of wind and hydro power calculators: to enable property owners to assess their own resources where appropriate
- Self survey forms – enabling householders to think more about the factors affecting different renewable energy technologies and to provide relevant and necessary information to installers

Effectiveness of the REAS

A number of letters of support have been received emphasising the necessity of, and appreciation for, the REAS service, highlighting the quality of the free and impartial service offered and the need for it to continue indefinitely.

Towards the end of the pilot year a survey was sent to a sample individuals who have benefited from the services offered. Of the 150 surveys sent out, 27 responses have been returned. These responses indicate that:

Question	Yes	No	Maybe	Not answered
Did you find the REAS service useful in your case?	27 (100%)			
Do you perceive a need for public access to a free and impartial source of domestic renewable energy advice service:	27 (100%)			
Within Pembrokeshire Coast National Park?	27 (100%)			
Outside Pembrokeshire Coast National Park?	27 (100%)			
Would you be happy to pay for a renewable energy site visit to your home, and if so, how much do you think would be a reasonable cost? ¹	15 (55.6%)	9 (33.3%)		3 (11.1%)
Has the advice given influenced your decision to install renewable energy?	21 (77.8%)	2 (7.4%)	3 (11.1%)	1 (3.7%)
As a result of the advice given do you plan on installing any measures that utilise renewable energy sources?	17 (63%)	4 (14.8%)	4 (14.8%)	2 (7.4%)
As a result of the advice given have you already installed any measures that utilise renewable energy sources?	9 (33.3%)	17 (63%)		1 (3.7)
Would you recommend this service to a friend or family member?	24 (89.9%)			3 (11.1%)

-
- ¹ 55.6% would be happy to pay a contribution towards the service, while 33.3% agree that it should remain entirely free to all those who request assistance. Of those who would be happy to pay a contribution, an average fee of £34.38 was suggested as being reasonable

In terms of installations that are known to have taken place or are going to take place in the next 1-2 years:

Installed measures resulting from REAS advice							
	Number	Typical rating	Total Rating	Typical Cost	Total Cost	Typical CO2	Total CO2 Saved
Hydro	0	3 kW	0			10535.65	0.00
Solar hot water	7	4m2	20m2	4000	28000	633.00	3055.50
HP	1	8 kW	8	10000	10000	5820.00	5820.00
PV	0	2 kW	0	12000	0	633.00	0.00
Wind	0	2.5 kW	0	14000	0	2110.00	0.00
Stove	1	10 kW	10	3000	3000	9043.00	9043.00
RWH	1						
PV 130 Watts	1	0.13				43.89	43.89
Wood boiler	1	15	15	6000	6000		5820.00
							9043.125
							23,782.39

Measures in hopeful/planning/installing stage resulting from REAS advice							
	Number	Typical rating	Total Rating	Typical Cost	Total Cost	Typical CO2	Total CO2 Saved
Hydro	1	3 kW	3			10535.65	10535.65
Solar hot water	5	4m2	20m2	4000	20000	633.00	2182.50
HP	6	8 kW	48	10000	60000	5820.00	34920.00
PV	3	2 kW	6	12000	36000	633.00	2025.60
Wind	3	2.5 kW	7.5	14000	42000	2110.00	6330.00
Stove	1	5 kW	5	3000	3000	1000.00	1000.00
RWH	1						
Planning	1						
Maybe	3						
Wood boiler	1	15	15	6000	6000		5820.00
Hydro 3.7-7.5 kW	1						21071.30
							83,885.06

This represents a total lifetime (25 year) saving of 2,700 tonnes of carbon dioxide emissions from an investment of an estimated £214,000 – a cost of £79.25 per tonne of carbon dioxide saved.

These figures do not take into account savings made by those:

- who have not responded to the survey
- who have not been sent a survey
- who have change energy related behaviour
- who have exchanged energy using devices (such as lighting, boilers, etc.) with more efficient models
- who have passed on energy saving ideas and behaviours to other people

Geographically, the service has been used by many different countries throughout the world, however enquiries have been received chiefly from within the defined jurisdiction of the West Wales Eco Centre: Pembrokeshire, Carmarthenshire, Ceredigion and Powys. Unsurprisingly, most enquiries have been from outside the National Park boundary.

A representative sample of comments received with the survey forms include:

- “Very useful. Has real knowledge”
- “Puts in more informed decision”
- “Excellent”
- “Relevant and Local”
- “Need to educate PCNP Planners”
- “Essential to provide free service”
- “Service needed everywhere”
- “Need to expand site visit area”
- “Should be available to everyone”
- “Disappointed to read funding has ceased”
- “The advice was excellent”
- “there is a crying need for the National Park to get its act together [on sustainability issues]”

Summary

Notwithstanding the current economic climatic, it is inferred that the Renewable Energy Advice Service has been a great success, and one which is valued very highly by those who have used it in terms of the quality of advice and assistance given, the number of measures installed and the impact on CO₂ savings. To this end, the continuation of the REAS service will enable increasingly significant savings to occur, helping Wales achieve national targets in greenhouse gas reductions, and in supporting the local renewable energy supply and installation industry.

It is too early to ascertain the impact of the REAS project on the volume and quality of renewable energy applications within the National Park; this will be better assessed at the end of 2009 and 2010, and is expected to have the greatest impact provided that the service is continued throughout this period. It is unfortunate that planners have not taken greater advantage of the service that has been made available, though this has not detracted from the encouraging level of householder demand that was experienced during the pilot year.