

Gwerin y Coed Funding Application CAE Snowdonia National Park Fund

Project name: **Renewable Energy Trailer for Gwerin y Coed Eryri District**

Applicant organisation: Gwerin y Coed the Woodcraft Folk in Wales <i>a progressive educational movement for children and young people</i>	Address: Y Ganolfan Llanfrothen Gwynedd LL48 6LJ Tel/Fax: 0845 458 9560
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<p>Gwerin y Coed / The Woodcraft Folk in Wales provides opportunities for children and young people to help build a world based on equality, peace, social justice and co-operation. It has always had an emphasis on environmental sustainability. Its recent Sustainability Project provided the impetus for the setting up of the Welsh Youth Forum on Sustainable Development.</p> <p>In N. Wales there are long-established Gwerin y Coed groups in the Bethesda area, Venturer (12-15) and DF (16-20) groups that draw their membership from across the northern Snowdonia area and Anglesey, and a new group for 13-16 year-olds which has recently been set up jointly with Urdd Gobaith Cymru in Llanfrothen. The groups are run co-operatively, and adult volunteers are involved in supporting the young people and helping them to organise a programme of activities.</p>	

Timescale:

Total cost of Project:

Sum sought from the CAE Fund:

1. Why Gwerin y Coed wants a renewable energy trailer

Gwerin y Coed groups hold regular meetings at local level and come together for District Camps and other activities; they are also frequently involved in larger-scale camps on an all-Wales or UK-wide level. At these camps there is a need for lighting, hot water and cooking – traditionally this would be met by kerosene or paraffin for lighting, and by bottled gas for hot water and cooking. At bigger joint Camps over the past few years, solar hot water has been introduced for washing and solar photovoltaic and wind power for lighting needs. This has brought Camp life into the 21st century and has enabled us to provide other activities attractive to young people, including music and film shows. However, the solar photovoltaic panels, controllers and batteries used at these events have belonged to other Districts and we have not been able to use them at local level in N. Wales.

The proposed project is to build a renewable energy trailer that can be used on summer camps for children and young people in Snowdonia and further afield. The skills involved in building the trailer will be useful and transferable, for both adult volunteers and young people, and the trailer itself will be an educational tool that will educate young people about renewable energy in a popular and highly visible way. The young people who will be involved in building it are enthusiastic and keen to use and promote renewable energy via the project. The trailer will belong to Gwerin y Coed Eryri District but will also be made available to other interested organisations within the Snowdonia National Park area.

2. The project's aims

- To get young people involved in thinking about their energy needs (in general and at Camps)
- To give young people an understanding of renewable energy sources and the technology underpinning them
- To enable them to design a renewable energy trailer suited to their needs
- To teach practical skills to adult leaders and young people so that they can build their own trailer
- To use this trailer for future Camps and other outdoor events within Gwerin y Coed, for other youth organisations and at appropriate events run by other organisations.
- To promote renewable energy in a practical and highly visible way at such events

3. The prototype for such a scheme

The Woodcraft Folk in the Leicester District have already constructed an renewable energy trailer which has been used on 3 camps so far, and at other events such as a Fayre day. The main use was at the week-long Venturer Camp last summer, where the electricity from the trailer powered lighting for two Village Marquees and two kitchen tents (for about 230 people), powered a PA system for meetings and music, and a projector for film shows. It also provided phone and laptop charging, torch-battery charging, and powered numerous appliances such as hair-straighteners/ cutters, a pump and electric drills during the week. This Camp was a pilot for a much larger festival that is being planned for the summer of 2006- Global Village. The report of this camp forms Appendix 1

Based on this experience a course was held in April 2006 at the Centre for Alternative Technology to train young people and leaders on the use of renewable energy at camps. 3 people from the Gwerin y Coed Eryri District attended

4. The technical side – construction and output

The equipment for the renewable energy trailer can be assembled quite quickly and if time for fitting it all on the trailer doesn't work out before mid July, it can all be packaged so that it would be relatively easy to load into a van instead. The advantage of the trailer is that you just turn up and plug in what you want to run; no need for technical expertise or strong-arms to lug heavy batteries. The Leicester prototype was built in a long weekend, with about 4 adults and 4 Venturers. One of the Venturers did most of the wiring (under supervision).

Appendix 2 = the spreadsheet which gives all the output information

Key stages	dates
a design group meeting ordering materials construction workshop – week end	mid June - mid July 2006
Joint Welsh Gwerin groups and Ukrainian youth groups camp in Llanfrothen area	24-28 July
Global Village international festival (see attached information) in Kent with 2 participating Welsh 'villages'	29 July – 9 August
Climate change Day with WYFSD in Bangor	29 Sept
continued promotion and use of this resource by Gwerin and other organisations	ongoing
eg renewable energy trailer on display and in use at Urdd and National Eisteddfodau in 2007	May and August 2007

BUDGET		contributions in kind	CAE Fund
Materials for trailer			
4 off 125 watt PV modules (Kyocera)	1400		
1 off Inverter (12 to 240Volt) 800 Watt	457		
1off Tarom 245 controller	125		
4 off Batteries (Elecsol 220Ah)	766		
Electrical wiring, connectors, fuses, safety features	400		
Mechanical fixings, mounting plates etc.	150		
tools to construct trailer	(500)	500	
Trailer plus tow bar fittings- locally made to order	2000		
Total ex VAT = 5,298			
Total inc VAT = 6,225			
vat included in above items	927		
contingency of £200	200		
trailer materials subtotals	£6925	500	£6425
Publicity materials:			
video equipment, cameras, exhibition stands etc	(1500)	1500	
leaflets and posters	£500		£500
photos for exhibition, video minidisks, VHS tapes	£120		£120
insurance	£200		£200
publicity and insurance subtotals	2320	1500	820
(SUBTOTAL of all materials)	9245 [A]	2000 [B]	(£7245) [C]
Labour			
Volunteers' expenses for construction workshop – transport, childcare and lunch	£200		£200
volunteer time to design and construct renewable energy trailer @£8 an hour -10 people, 8 hour day	£640	£640	
volunteer time to operate and promote renewable energy trailer over a 12 month period - 4 people for 21x 7 hour days @ £8 an hour	£4704	£4704	
Gwerin y Coed's office manager time to produce and distribute publicity materials 3 days @ £15 an hour	£315		£315
Gwerin y Coed's development worker's time to promote use of trailer in north west Wales through networking events, eisteddfodau and festivals 5 days @ £20 an hour	£700		£700
office overheads (telephone, postage and rent etc)	£500		£500
(SUBTOTAL)	7059 [D]	£5344 [E]	£1715 [F]
Total cost of project =	£16304 [A+D]	£7344 [B+E]	£8960 [C+F]