


INFORSE-EUROPE
 International Network for Sustainable Energy



Community-based renewable energy schemes in Mid Wales

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http://www.inforse.org/europe/seminar09_CAT.htm

Outline

- What is ecodyfi?
- Examples of attempts to make our own renewable energy, at varying scales, with different “developers” and using several technologies
- What we need to be able to do it

What is ecodyfi?

ecology & economy

A membership organisation, bringing people together to foster sustainable community regeneration in the Dyfi Valley





Examples of community scale renewable energy projects

- Housing Associations
- Wind developers
- Cooperatives
- Community buildings
- Schools
- Farms
- Houses



18.4 kW solar electric array on social housing in Machynlleth (Tai Cantref with UK Government support)

Landowners' wind farms

Amegni: Carno 2

- 3 hill farming families
- 12 x 1.3 MW turbines
- £20M cost: 80% debt; sold 20% to FIM investments
- £30,000 p.a. to community benefits



Community wind farms

Awel Aman Tawe

Still planning 2 turbines of 2MW each, just south of Brecon Beacons!



www.awelamantawe.org.uk

Smaller wind turbines

Bro Dyfi Community Renewables Ltd

- An energy co-operative
- 209 shareholders

Second user turbines

75 kW & 500 kW

www.bdcr.org.uk



Community owned hydro

Talybont on Usk Energy

www.talybontenergy.co.uk

- Community group promoting generation and use of renewable energy and energy efficiency
- 36kW Valley Hydro crossflow turbine (Dulas Ltd)
- Income pays for energy saving measures



Community buildings

Machynlleth Golf Club



Loft space insulated



Solar water heating & 3 kWp solar electricity

Community buildings

Carno Community Centre

- 45 kW wood pellet boiler
- Containerised
- Heating & hot water
- Hall, function rooms, showers
- Estimated it will save 12 Tonnes CO2 p.a.
- £61K capital cost
- Grant from Windfall



Community buildings etc

Llanwddyn district heating system

- Community centre, school, & 36 houses
- Woodchip
- Owned by Powys CC

www.dulas.org.uk



Schools

Ysgol Dyffryn Trannon Trefeglwys

- 8 kWp solar array
- Installed 2006
- Green energy learning tool
- Demonstration for community
- Reduces electricity bill



Farms:

Maesglas hydro

100 kW water power scheme near Mallwyd (2 intakes; sells into Grid)



In Berwyn SSSI & Snowdonia National Park



Constructed powerhouse himself

Dwellings

- Former chapel, Llanwrin
- 990 Watt photovoltaic array
 - Solar water heating
 - Conservation Area





960 Watt photovoltaic array on bungalow at
Dolguog, Machynlleth
Property also has ground source heat pump

Barriers / requirements

- Suitable site / resource
- Money to spend "at risk" (feasibility stage)
- Planning & other permissions (e.g. hydro)
- Proximity/cost 3 phase grid & connection
- Cost of share issue prospectus if done in usual way (Industrial & Provident Society?)
- Such costs are heavier for small schemes
- Decent selling price (feed-in tariff, ROCS)
- Hand holding from a support agency / network

Considerations

- Get informed; including: who can help?
- Expertise – a resource / options study?
- Clarify aims – why are we doing this?
- Local support
- Initial funds
- Feasibility study?
- Permissions
- Capital – shares / loan / grants?
- Be persistent!

