

ENNEREG – Hitting the 2020 Target

20% Reduction in GHG emissions

20% Increase in energy efficiency



Regions
2020



INTELLIGENT ENERGY
EUROPE 

PIONEER REGIONS (12 from across Europe)



Sustainable Energy Action Plan
15 Sustainable Energy Projects – 8 themes
Inspiration Guide of Best Practice

TWINNED (12 similar regions)



Replication of Best Practice
Support for Sustainable Energy Action Plan

Wales SEAP

- Based on a series of Welsh and UK Government policy documents with key splicing of everything together.
- SEAP based on the Covenant of Mayors template but modified to reflect the wider context.
- Other partners are having to work from scratch

A low carbon revolution

Produce twice Wales consumption by 2025

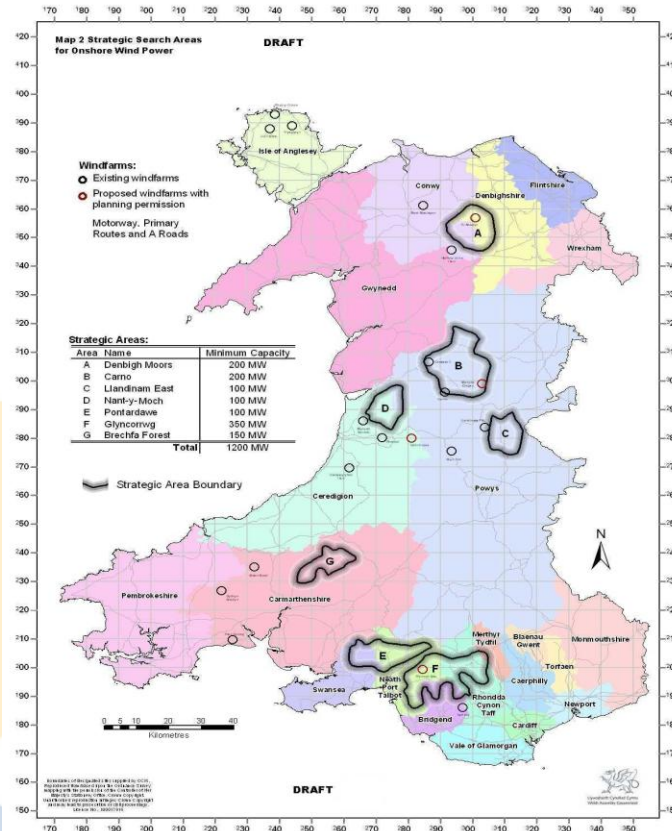
Aim for full self sufficiency by 2050

£50 billion investment potential

Focus on employment and participation

Enabling role of the Assembly Government

Onshore wind power



Potential Collaboration

- Exchange of good practice and things that didn't work! (we are doing some of this already)
- Joint Projects (we are doing lots of this already)
- Working up a SEAP

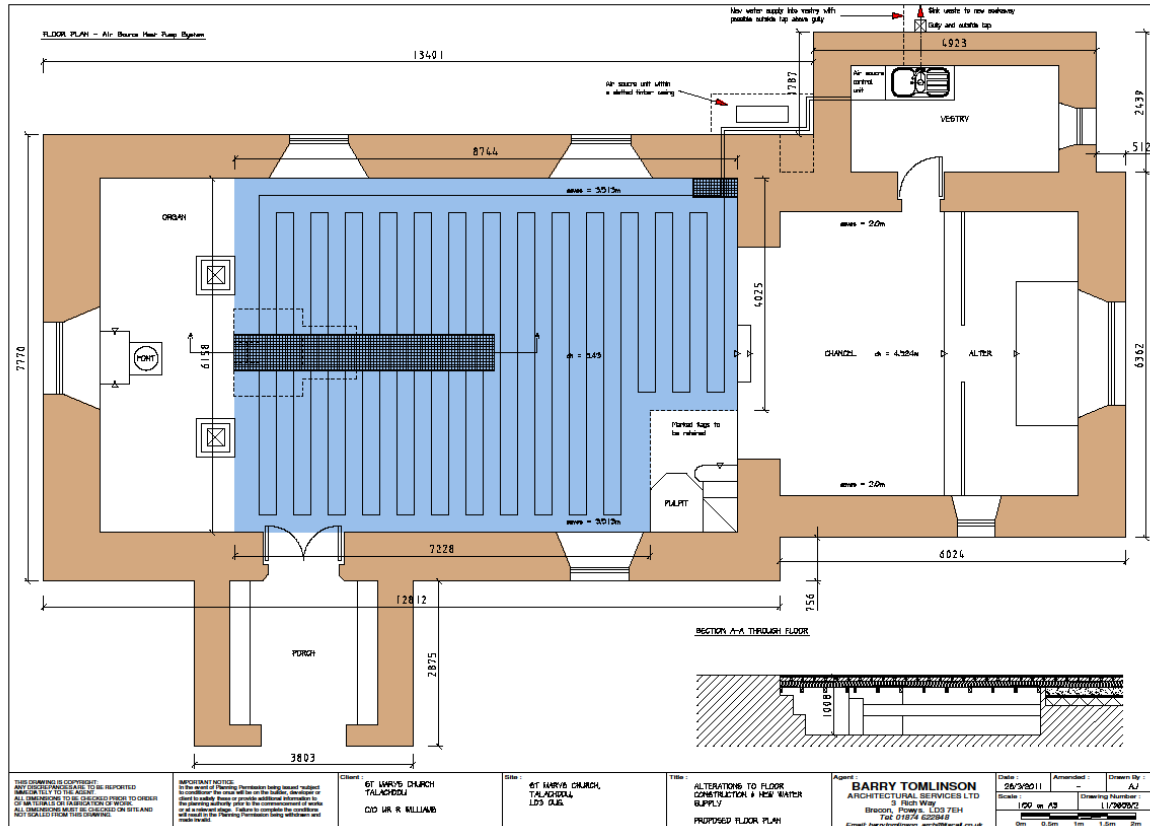
Some of our Sustainable Energy Projects

- Woodfuel Supply chains – Woodfuel Wales
- Training for small-scale RE installers – Energy Saving Trust on behalf of Welsh Government
- Source Segregated Food Waste collection awareness-raising

REPORT and RECOMMENDATIONS

Sustainable Energy options for **Older Churches and Chapels in Wales**





Under floor Heating

Air Source Heat Pumps

Ground Source

Biomass

Possibly solar thermal

Efficient new gas boiler

Energy Efficiency

Measures

The Key is...

Keeping Feet Warm!

WALES AFRICA LINK EXHIBITION

– impacts of Climate Change – Local/Global
On tour around Welsh Venues during 2011



The villagers of Bangalala, Tanzania, are subsistence farmers and every bit of land is used for crops. All the families cash will go to buying the seeds to grow enough maize to feed the family for the coming year. More and more often the villagers plant the maize in time for the rain season to then have them dry up and die when the rains don't last. This is devastating for the families as they can't afford to buy more grain to replant.



We are working with our partners to enable them to reduce the amount of carbon that they are emitting and the wood used in cooking. These fuel efficient stoves at Bulabakulu village were researched , purchased and part-funded by AGLMUK in at attempt to save money and forest destruction.

The next stage in the process at Bulabakulu (Uganda) involves the construction of a biogas plant that will mean that some of the wood used for cooking can be displaced by gas formed through the natural digestion (by bacteria) of cooking and plant wastes (like potato peelings and the leaves of the plant).



Other Projects of Interest?



SevernWye
ENERGY AGENCY

Ynni'r Fro

Ynni Adnewyddol ar raddfa gymunedol
Community Scale Renewable Energy
generation



energy saving trust[®]
ymddiriedolaeth arbed ynni



Awel Aman Tawe
community energy



- 5 year programme
- Supports Community Scale Schemes – over 50kW as a rough baseline
- owned by community groups and social enterprises
- Main Targets: Income generation, job creation, energy generation

1. Development Officers:

- Project Management Support
- Technical Expertise
- Capacity-Building
- Community Engagement
- Liaison with external groups
- Encouragement
- Access to grants
- Explore funding options

2. Preparatory Costs

- 100% Grants of up to £30,000

3. Capital Funding

- Grants or Loans of up to £300,000
 - Normally up to 38%
 - Conflict with Feed-in-Tariff

Who can apply?

Social enterprises

Examples:

- *Community Interest Company*
- *Industrial and Provident Society*
- *Company limited by guarantee or shares*
- *Limited liability partnership*
- *Registered charity*



What are the benefits and drivers?

- **Financial** – introduction of FITs has made large community scheme highly lucrative
- **Community ownership** – control of own, resources, finances and additional community benefits
- **Renewable Energy Generation** – reducing carbon footprints and acting as a focus for wider community carbon saving activities
- **Cash Cows** – providing income for other community projects – reducing reliance

What are the barriers?

- Public Perception – especially to wind scheme
- Finance – prior to gaining planning
- Timescales – schemes take a long time, it's tough!
- Permits and Planning – take time, lack of understanding and complicated (seemingly)
- Confidence – it is a big undertaking



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Key Lessons...

- Local support is important – provides local knowledge, understanding and trust
- Communities that start with smaller, more manageable projects (allotments, energy efficiency, village hall/school/church) have more success with larger more complicated schemes
- Important to be inclusive, build on successes and gain credibility within the community

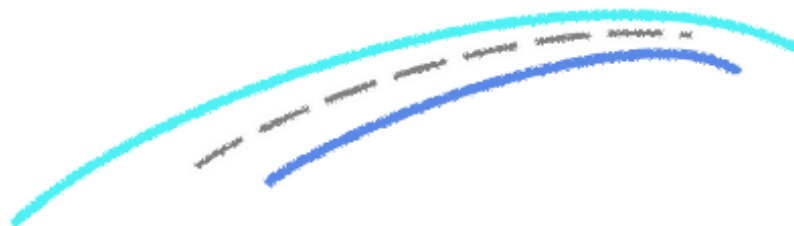
Llangattock Green Valleys

“Delivering a Carbon Negative Community”

- *Litter Pickers*
- *Biodiesel Club*
- *Micro-Hydro* (ENNEREG SEP)
- Allotments
- *Woodlands Group*
- *School & Community Hall*
- *Residential Group*
- Anaerobic Digestion



BIO-METHANE REGIONS



INTELLIGENT ENERGY
EUROPE



Partners

- Universities of Glamorgan and Vienna (Technical)
- Regional partners from Hungary, Croatia, Slovenia, Italy, Austria, Germany, France (x2), Belgium, Denmark, Germany and Sweden.
- Co-ordinated by SWEA
- Moving from Biogas to Biomethane



1. Increase and support update of Anaerobic Digestion
2. Research and Commercial development of upgrade to biomethane for gas to grid injection and vehicle fuel
3. Work with partners to develop best practice and innovative solutions
4. Promote AD and biomethane, provide training, support policy development and link research to industry



LOW CARBON COMMUNITIES POWYS

RURAL DEVELOPMENT PLAN FUNDING

Three towns to install a community owned and operated renewable energy (RE) generator. This would...

Provide a focus for initial activity and for the engagement of the whole community.

Act as a catalyst for further action to reduce carbon emissions, reduce fuel poverty and cut business over-heads via energy efficiency measures or further renewable energy installations.

Secure an income for future projects



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Llanidloes Energy Solutions

- Photovoltaic Panels - 4kW
- Replaced Gas Boiler heating system
- Cavity Wall Insulation
- Window repairs





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TALGARTH MILL



Restoration of Talgarth Mill

- Restoration of Original Mill Wheel
- Restoration of Leat and Gardens
- Restoration of flour mill
- Demonstration hydro systems
- Attracted other funding to restore whole building and gardens

BBC Village SOS winners



Pathfinder
Programme -
Community Action
for Climate Change

Rhaglen Braenaru -
Gweithredu
Cymunedol ar
Newid Hinsawdd



Ariennir gan
Lywodraeth Cymru
Funded by
Welsh Government

Europe

1. Map climate change action carried out by communities
2. Support and encourage communities to take action on climate change
3. Understand what works when communities lead on climate action



Helpu Cymru i leihau
ei Hôl Troed Carbon
Help Wales reduce
its Carbon Footprint

Gweithredu Cymunedol ar y Newid yn yr Hinsawdd:
Rhaglen Cynllun Braenaru

Community Action for Climate Change:
Pathfinder Programme