



Using Partnerships to Place Energy at the Heart of Sustainable Development and Regeneration of Peripheral Regions

A conference paper for the CPMR Energy on the Periphery Conference October 2006
Pamplona, Spain

To support the presentation given by Tim German, Director of Cornwall Sustainable Energy Partnership (CSEP) and member of the Energy Steering Group (CPMR)

Challenging Conventional Wisdom

To what extent can the development of renewables and reduction in energy demand be taken on board alongside the social, economic and environmental imperatives of peripheral regions?



1. INTRODUCTION

This report has been prepared to support the presentation for the Energy on the Periphery Conference, October 2006, by Tim German, Director of the Cornwall Sustainable Energy Partnership (CSEP). The recommendations provided at the conclusion of this paper are the result of discussion at the first CPMR Energy Working Group seminar which was hosted by Cornwall County Council in Truro on 19th & 20th September 2005. The CPMR Cornwall Seminar specifically addressed the issues outlined within this paper.

Initially this paper considers the issue of energy sustainability in peripheral regions through the context of Cornwall.

Cornwall:

At the far south west tip of the UK, Cornwall is a maritime region on the furthest periphery of Europe. It has over 600 kms of coastline, a population of 500,000 and as a result of its low GDP, is the beneficiary of European Structural Funds at the highest level. It has specific socio-economic issues, many of which affect its energy sustainability and relate to its peripherality (including low GDP / high house prices creating very high levels of fuel poverty and a poor gas infrastructure). At the same time it is regarded as being at the forefront of the UK's battle against the onset of Climate Change effect.

Cornwall Sustainable Energy Partnership (CSEP) was created in 2001 as a public-private consortium to embed sustainable energy within the wider context of Cornwall's economic development. The cross-sector partnership has a membership of over 80 organisations including all local municipalities/authorities, all local health sector organisations, business representatives, the renewable energy sector, education authorities and community groups. In July 2004 the UK Minister for Energy launched the Energy Strategy for Cornwall, the UK's first sub-regional sustainable energy strategy and action plan. The role of the Partnership is to actively work together to deliver the 32 actions and targets detailed in the strategy. The strategy and the Partnership have won various important national and international awards including the International Ashden Award 2005 and in 2005 all CSEP's local authorities were awarded Beacon Council Status for Sustainable Energy. The work of the Partnership has been regarded as best practice in Europe.

In July 2006 CSEP hosted a day long visit to Cornwall by the Energy Commissioner Andris Piebalgs, during which he met the Partnership and visited some of its projects.



Commissioner Piebalgs (centre) with CSEP Director Tim German (2nd left) Leader of Cornwall County, David Whalley (3rd left) Graham Watson - Member of the European Parliament (3rd Right) & Julia Goldsworthy MP - Shadow Treasury Minister (on right)



Commissioner Piebalgs visiting residents who have benefited from CSEP sustainable energy programmes in Cornwall.

Primarily, CSEP's work covers Cornwall and the Isles of Scilly; however the individuality of its approach has influenced local authorities and regional organisations in Scotland, Wales and England as well as providing an effective lobbying powerbase for approaching the national and European parliaments.

In April 2006 the Partnership was successful in a funding bid, allowing direct access to UK Government ministers in four government departments - the DTI, DEFRA, ODPM and the DfT. The Partnership will advise how the four departments can enhance their delivery of the Government's energy policy through improved alignment of departmental approaches. Of particular relevance to this paper, the work will also include advice on aligning national policy to local delivery.

Its role in dealing with the inevitable consequences of Peripherality on local energy sustainability, provides CSEP with a European platform for its work.

The 'consultation' has involved various seminars in peripheral regions and reaches its conclusion at a major conference to be held in the Spanish region of Navarra in October 2006. The first seminar was hosted by Cornwall County Council in September 2005. The Cornwall Seminar specifically addressed the issues outlined within this paper.

Since April 2006 the Partnership has begun to facilitate its work though a revised structure, more appropriate to deliver the Strategy within an economic context.. Previously four principal task groups had been a very practical methodology bringing together the diversity of partners to instigate specific projects. However, in 2006, the fifth year of the Partnership, it was recognised by the CSEP Strategic Steering Group that having achieved a successful approach to partnership working, CSEP needed to concentrate on greater delivery mechanisms.

The whole ethos of SUSTAINABLE DEVELOPMENT can best be served by involving those in both the Public and Private sectors to utilise their skills and resources to address issues such as energy sustainability.

This paper is particularly aimed at those who are based in, or working with, peripheral communities that are undergoing programmes of social and economic renewal and regeneration. The Energy Strategy for Cornwall identifies such programmes as being of core importance to the delivery of sustainable energy communities. Such delivery, however, cannot be delivered without substantial cohesion between, and within, local and national agencies.

Having identified urban regeneration and rural development programmes as key opportunities for an integrated and effective energy programme, on 11 July 2005 CSEP hosted the 'Energy in Regeneration' conference at the Combined Universities in Cornwall Tremough Campus, Penryn.

This conference brought together over 200 delegates to discuss the important role of energy within urban and rural regeneration. The event focussed especially on six themed workshops that were each held twice during the day, accommodating a total of up to 80 delegates each. These workshops were organised to enable active discussions and recommendations to be made. The key issues and recommendations that follow have been drawn from these discussions. A more detailed conference report is available on request from lindsay@csep.co.uk.

2. ENERGY IN REGENERATION

Many European regions are undergoing programmes of intense economic regeneration. Peripheral regions in particular find themselves needing to restructure in order to combat the economic influence of the metropolitan centre. Populations in peripheral regions are often sparse and as such urban regeneration is often complemented by rural development. Whatever the terminology used, it is essential that such regeneration occurs in a sustainable way, in order to ensure long-term economic growth and competitiveness. Issues such as energy demand and security of energy supply need to be addressed within local and regional strategies. This is especially the case in Cornwall, a sub-region in the far south west of the UK, where the social, economic and environmental pillars of development are crucial elements of local sustainability.

2.1 Background

Cornwall suffers from serious social and economic problems due, at least in part, to its location at the south western periphery of the UK. This peripherality means that security of energy supply is a particularly serious problem with limited existing access to the UK's main gas supply.

Deprivation levels in Cornwall are amongst the highest in the UK and many residents live in energy deprivation, known in the UK as fuel poverty¹, unable to meet the costs of their energy bills. Current rises in fuel costs is making this situation even worse. Due to Cornwall's economic performance lagging behind both the national and EU averages, the region was awarded Objective One status for the period 2000 - 2006. The overall value of the grant aid being made available through the Objective One programme for Cornwall and the Isles of Scilly is approximately £300 million (€440 million). Although Cornwall has made progress during the past few years, the region still remains below the EU average GDP per capita and further Structural Fund support will be maintained through European Convergence funding over the forthcoming financial perspective 2007 - 2013.

It would seem most appropriate that regeneration funding programmes in particular support energy-related projects and developments to ensure the sustainable development of our communities, yet in Cornwall to date this has been far from the case. It is widely considered that opportunities for supporting energy-related projects under the current Objective One programme have been minimal. This is due to the narrow economic focus and targets that have been prioritised within this programme. These include the creation of jobs and workspace.

¹ The UK definition of a fuel poor household is one which needs to spend more than 10% of its income on all fuel use and to heat its home to an adequate standard of warmth.

In 2008 Cornwall becomes the recipient of further European high level 'Convergence' funding. Over the past twelve months evidence and reports have been produced (available on request) to help ensure that opportunities for energy programmes are included within any future Structural Fund programmes in Cornwall.

On a national level regeneration programmes frequently look for quick results, and do not look at longer-term issues, such as the impacts of climate change. There seems to be an overall lack of awareness of the economic, social and environmental roles that energy plays within our society and this extends across many sectors, including at national, regional and local government levels. This awareness needs to be considerably raised and **energy must be fully incorporated within the wider concept of sustainable development.**

The following section details the various roles that energy plays in underpinning the economic, social and environmental pillars of sustainable development. Integrating these three pillars is an important element of delivering energy programmes under the banner of sustainable development and an example of how this can be done is detailed in section three. Recommendations then follow regarding how energy should be prioritised and integrated within the regeneration and development of Europe's regions.

2.2 ECONOMIC

Most householders in the UK spend between 2 - 4% of their disposable income on energy, whilst families can be looking at up to 15 - 16%. When one looks at the breakdown of an energy bill most of the costs are due to transmission and distribution costs from the source to the customer. In peripheral regions this is further exacerbated by the increased distance between the source of energy generation and the consumers. **Local sources of energy can significantly boost the local economy** by reducing fuel bills, generating more spend locally, and creating jobs.

Developments such as community-owned windfarms bring direct income into a community, as well as providing employment through operation and maintenance. Integrating renewable energy technologies in new and existing buildings reduces the demand for conventional energy sources. On a regional level the reduced dependence on external energy imports can amount to huge financial savings.

In addition to local sources of energy, **energy efficiency** technologies can also help support the local economy. Installation of energy efficiency measures in poorly insulated homes can significantly reduce fuel bills, again putting more money back into the local economy. Installation of energy efficiency measures and technologies provides further employment and revenue opportunities. There is however a need to ensure that installations are completed to an exemplary standard and, more importantly, where new homes are being built that high levels of energy efficiency are met and that this is quality assured.

As well as representing a major source of employment, the sustainable energy industry also represents a major source of **innovation and regional investment**. The region of Upper Austria for example has demonstrated its success in developing this sector, where the level of regional investment reached €80 million in 2004. This region has been especially successful in developing a biomass industry and this has opened the opportunity for many farmers to diversify and earn additional incomes. Every region will have its own distinct renewable energy resources to exploit, for example Cornwall has extensive geothermal and wave energy resources in addition to wind, solar and biomass. However to enable these resources to be

fully exploited and to support the establishment of the emerging sustainable energy industry some financial assistance and incentives are required.

2.3 SOCIAL

The economic impacts of developing the sustainable energy industry and increasing the share of renewable energy sources have clear social implications through the creation of jobs and retention of money in the local economy through reduced energy bills. There are also much wider social impacts of energy on our communities. **Household energy deprivation** can be a serious issue in peripheral regions, especially where access to national gas and electricity networks are limited. This often results in homes not being properly heated and subsequent **health problems** for residents such as respiratory illnesses like asthma.

This problem can be more prevalent within older generations who are reliant on relatively lower incomes and are more susceptible to suffering the ill health effects of living in cold, damp homes.

The installation of energy efficiency measures in homes therefore not only reduces fuel bills but also directly impacts on the health of residents. This relates equally to the installation of renewable energy technologies into homes, such as ground source heat pumps or solar technologies, which produce energy more efficiently and economically. The establishment of schemes such as community-owned wind farms not only brings a source of revenue but also helps bring people together. Exploiting renewable energy sources also **reduces the reliance** of our regions and communities **on external sources of energy** and limits the impacts of the continual rise in cost of diminishing oil and gas reserves.

2.4 ENVIRONMENTAL

There are clear environmental benefits of developing and installing renewable energy and energy efficiency technologies, the most obvious being the reduction in carbon emissions and improved air quality. Sustainable energy clearly helps reduce and mitigate the impacts of climate change. There are wider environmental aspects of energy and energy use to be considered.

This includes for example the building of new homes and offices, which puts further pressure on limited landfill space as it is estimated that up to one third of construction materials delivered at building sites end up as waste. Furthermore there is ever decreasing environmental capacity to absorb the additional impacts of new dwellings. Regeneration programmes often prioritise the creation of new homes and office space, whereas more really needs to be done to assess the potential for renovation and revitalisation of existing housing and office space, making them as energy efficient as possible.

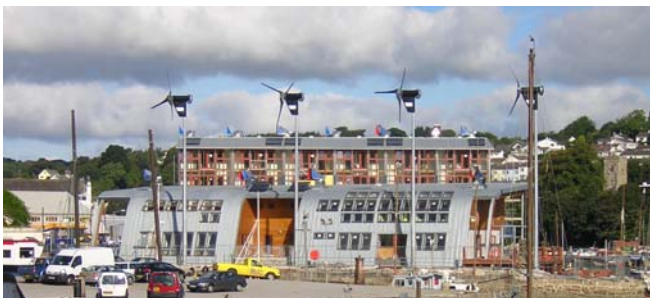
Conservation of the natural environment itself can sometimes be a barrier to the development and installation of renewable energy and energy efficient technologies. The difficult balance between preserving the visual landscape/building aesthetics and reducing our carbon emissions is an issue especially in peripheral and maritime regions such as Cornwall, where tourism represents a large proportion of the economy. The reality is that if we don't reduce our carbon emissions by adopting more sustainable approaches to energy use then the effects of climate change on our landscapes will be far more devastating.

3. INTEGRATING ENERGY IN REGENERATION IN PRACTICE

Regeneration programmes need to meet holistically, the needs of local communities and must look at energy across the three pillars of sustainable development and identify commonalities. As an example, a programme to reduce household energy deprivation will be directly addressing the **social and health** related impacts of residents living in cold, damp homes. It should however also look into **economic** opportunities such as the creation of employment through programme delivery, for example through the installation and maintenance of energy efficiency measures or renewable energy technologies within homes and buildings, and make assessments of how much regained income this will release into the local economy. This is being demonstrated for example through '*Home Health*', a fuel poverty project being delivered across Cornwall and the delivery of a local target to triple the installation of micro-generation by 2008. .

National and private sector funding is being used to deliver the *Home Health* project, which provides free insulation measures such as loft or cavity wall insulation to homes across Cornwall's most deprived areas. In addition to the **environmental** benefits of improved household energy efficiency and the social benefits of warmer and healthier homes, *Home Health* has created additional employment through the management of the project itself as well as through the increased workload for insulation installers. This is just one example, but is included to demonstrate how energy directly underpins the principles of sustainable development in our communities.

The Partnership, working with the UK's eleventh Urban Regeneration Company, has recently launched a feasibility study on achieving energy sustainability in Camborne, Pool and Redruth. It makes specific recommendations which include the creation of an Energy Service Company and maximising the natural resources of the area. The Partnership is currently awaiting news of a bid for European Commission Intelligent Energy Funding for a project which uses experiences in such regeneration areas as the basis of a study in Energy on the Periphery of Europe.



New zero emission building, Penryn, Cornwall

In another regeneration area at the far South West of Cornwall, the harbour of Hayle, the Partnership has been developing close links between the developers, ING, and a major energy generation project (Wave Hub) utilising wave power technologies, twenty kilometres off the north coast of Cornwall. It is expected that the Wave Hub, which involves wave developers from across the world, will be operational by Summer 2008. This work will provide major economic opportunities for Cornwall through energy sustainability and jobs in the knowledge, manufacturing and maintenance sectors.

4. PARTNERSHIP WORKING - the Cornwall model.

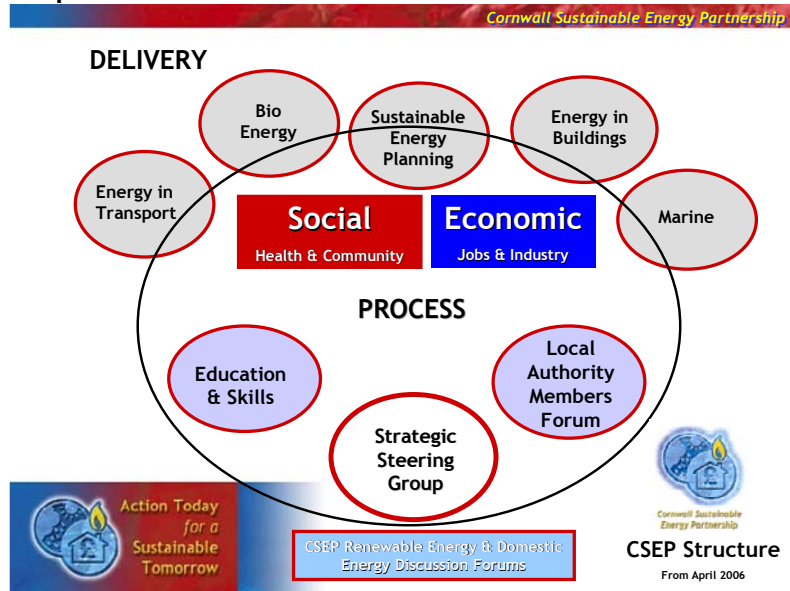
The principal aim of the Cornwall Sustainable Energy Partnership is to actively integrate sustainable energy into **public, private and community** sector activities across the region by:

- mainstreaming sustainable energy in existing partnerships and initiatives;
- developing new partnerships and initiatives as required;
- providing support to existing and new initiatives;
- prioritising activities that explicitly address climate change and fuel poverty issues;
- attracting funding for these activities.

4.1 Partnership Process

In December 2000, a consultation process began across the whole of Cornwall to confirm that the need for the partnership existed. In November 2001 the consultation process was complete, and fifty organisations from the public, private and community sectors signed up in support of an 'Action Plan for Energy Partnerships for Cornwall and the Isles of Scilly - towards well-being in a sustainable energy future'. CSEP was launched and its business plan was approved by partners. A steering group and four task groups were established to take forward the Action Plan. Each of these task groups has developed and instigated programmes relevant to its sector and CSEP has set itself targets reaching to 2010 and beyond. The CSEP office, based at Community Energy Plus (CEP), has 6 full-time staff specifically dedicated to coordinating, developing and facilitating the partnership's work, working in conjunction with CEP's community outreach team and Cornwall Energy Efficiency Advice Centre staff.

4.2. Partnership Structure



In April 2006 the Partnership began to operate in a refocused structural format which provides greater opportunities for delivery in four key areas: BioMass Energy Generation; Alternatively Fuelled Transport; Energy in Buildings and Marine Energy generation. In order to maximise opportunities the Partnership will also concentrate on Process through Planning and Economic linkages.

However, for the first four years of its operation the principal task for CSEP was to ensure that it facilitated a successful public and private sector forum for the development and initial delivery of its strategy.

This was achieved through work in key areas appropriate to the role that energy plays in the **sustainable development of a peripheral and maritime region**.

One of these key areas, *'sustainable energy and its role in achieving healthy communities'* was a particularly important focus for the initial work of the Partnership. Representatives from each local authority, health authorities and housing associations plus renewable energy and energy efficiency organisations initiated the *'Home Health' Scheme* - a 'zoned' practical programme delivering energy efficiency and cleaner, more affordable heating measures to homes in deprived areas of Cornwall.

Home Health has successfully delivered energy efficiency work in 5,000 fuel poor homes over and above the normal level of achievement, and this success has brought £1million of further investment into similar programmes.

In April 2006 the Office of the Deputy Prime Minister agreed that a similar amount of funding will be forthcoming for another such agreement, a Local Area Agreement, which involves achieving an agreed target for the installation of low and zero carbon technologies in domestic and community buildings.

Dealing with fuel poverty is, indeed an extremely important facet of the sustainable development of communities in such a peripheral region as Cornwall.

However, it should be noted that there is a considerable difference in approach and categorisation of energy efficiency in the UK to that of other European regions. Through its work in this field CSEP has ascertained that at European level the political reference to energy efficiency is that of competitiveness and environment. In other words the economic benefits of energy efficiency are highlighted. In the UK, however, the Government refers to energy efficiency as being a social and environment programme. CSEP's programme places energy at the heart of sustainable development and provides evidence that cohesive energy efficiency and renewable energy programmes can deliver social, economic and environmental benefits.

5. CONCLUSION & RECOMMENDATIONS

The first of three CMPR Energy Working Group events took place in Truro, Cornwall on the 19th/ 20th September 2005.

The primary purpose of the event, attended by representatives from the European Commission, CPMR and Islenet and delegates from Sweden, Romania, France, Spain, Holland, Western Isles, Orkney and various regions of the UK was to address the following question:

To what extent can the development of renewables and reduction in energy demand be taken on board alongside the social, economic and environmental imperatives of peripheral regions?

CONCLUSION:

High transmission costs, lack of infrastructure and socio-economic polarity are key factors in ascertaining that peripheral regions require a specific approach to policy. It is important that whenever urban or rural regeneration occurs in peripheral regions, it is undertaken with future sustainability of the community as a core function. Therefore all such regeneration must be undertaken utilising sustainable methodologies in order to ensure long-term economic growth and competitiveness. Issues such as energy demand and security of energy supply need to be addressed at an early stage in the process and therefore must be included within local and regional strategies.

RECOMMENDATIONS:

Below are some recommendations to ensure that sustainable energy is prioritised across regeneration and development programmes in peripheral regions. These recommendations may relate to governance and decision-making at local, regional, national, EU and International level.

1. Due to the equally important roles of energy efficiency and renewable energy in peripheral regions the term 'sustainable energy' should be promoted, rather than separating the two issues.
2. Regeneration programmes, such as those funded through National, EU and International Funds, should recognise sustainable energy as a distinct priority, and not simply as part of a cross-cutting theme.
3. Carbon savings should be included alongside other economic targets within regeneration funding Programmes.
4. Sustainable energy options should be factored into any regeneration development at an early stage.
5. The public sector should lead by example and invest in renewable energy within public infrastructure. The Energy Services Company (ESCO) approach should be exploited as a means of financing renewable energy technologies.
6. Training should be provided to educate and raise the awareness of planning officials of the opportunities for integrating sustainable energy options within developments.
7. Those who deliver urban or rural development/regeneration programmes should ensure that they work with planning officials to specify a minimum level of renewable energy and energy efficiency technologies to be integrated into new developments.
8. If appropriate for the country and region concerned, renovation and revitalisation of existing homes and commercial premises should be prioritised over new build. This includes promoting the reuse and development of currently empty buildings.
9. International, European and National Departments responsible for energy, industry and the environmental matters should work more closely together to ensure sustainable energy is integrated across policies in each of these sectors.