UKERC

ENERGISING COMMUNITIES

Workshop Report

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THE UK ENERGY RESEARCH CENTRE: MEETING PLACE

The UK Energy Research Centre's mission is to be the UK's pre-eminent centre of research, and source of authoritative information and leadership, on sustainable energy systems. UKERC undertakes world-class research addressing whole-systems aspects of energy supply and use, while developing and maintaining the means to enable cohesive UK research in energy.

A key supporting function of UKERC is the Meeting Place, based in Oxford, which aims to bring together members of the UK energy community and overseas experts from different disciplines, to learn, identify problems, develop solutions and further the energy debate.

WORKSHOP BACKGROUND

The aim of this workshop was to bring together individuals from different academic disciplines, policy and practice, from the UK and EU, to discuss the role of communities in renewable energy developments. A key element of the day was the presentation of new results from a project funded under the ESRC Sustainable Technologies Programme - Harnessing Community Energies: embedding sustainable technologies at the community level.

The objective was to promote a critical assessment of the role of communities in renewable energy developments – an issue typically neglected in debates about energy issues. The aim was to inform businesses seeking to communicate with local residents affected by planned developments, as well as public sector bodies seeking to inform and educate local people about energy planning and development. This contribution coincided with a review of energy policy and continued funding of the Community Renewables Initiative in England.

Key stakeholders attending the workshop included: policy makers and other organisations considering future directions in national energy policy (Energy Review) and the role of meso-level action in achieving policy goals; academics interested in energy and community involvement in environmental technologies and practices; businesses seeking knowledge and expertise concerning community support for renewable energy developments; local authorities and energy agencies seeking to involve and inform communities about the potential for renewables developments in their localities. A full attendance list is available on the Meeting Place website, along with a programme and copies of all presentations given at the workshop (http://www.ukerc.ac.uk/content/view/305/503).

This report summarises the presentations given at the workshop, along with a summary of the key points arising in the plenary discussion session. Further details of the results of the ESRC-funded ‘Community Energy Initiative’ project are included in an appendix.

CORE ORGANISING TEAM

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Workshop context

Recent years have seen the emergence of a series of initiatives aimed at supporting community level renewable energy projects. Such projects at 'meso'-level fall between household 'micro'-generation and the large scale 'macro'-generation exemplified by, for example, onshore wind farms and biomass installations and represent a potential third element in a wider portfolio of renewable energy policy initiatives.

This workshop was organised in order to bring together individuals and representatives from a wide range of organisations in order to reflect upon the role of communities in renewable energy developments. Practitioners, politicians and academics representing a diversity of professional and geographical interests and experiences were invited to the workshop to hear a series of speakers and to participate in a wide ranging discussion over the future of community energy in the UK.

The event was timely for two reasons. Firstly, the UK Government had announced a renewed funding regime for micro generation and community energy projects. Secondly, the 'Community Energy Initiative' research project funded by the Economic and Social Research Council was nearing completion, providing an overview of UK community energy projects and their policy context.

The workshop presentations and the ensuing discussion clearly underlined the UK potential for community energy initiatives. There are in the region of 500 community energy projects currently in the UK, demonstrating a wide range of technologies and approaches. However, although these projects will generate a considerable amount of kilowatts, it is equally important to recognise other roles that they may play. The contribution of projects to, for example, combating social exclusion or increasing public understanding of renewable energy technologies may be as important as power generation or energy conservation.

Workshop presentations

Researching Community Renewable Energy: introduction and project results project results – *Dr. Patrick Devine-Wright, University of Manchester*

Patrick Devine-Wright summarised the results from the two year academic 'Community Energy Initiative' research project, funded by the ESRC. The project involved compiling a database of renewables projects, profiling the national community energy programmes and focusing on six case studies through interviews and surveys. Diversity emerged as an important aspect of community renewables projects, with different structures and scales involved. The key stakeholders and funders also varied, as did the level and type of support received. Drivers and motivations between the programmes were multiple and differentiated, as were the conceptions of what 'community' was. However, the key message was that such diversity should be seen as a benefit rather than a disadvantage, with the appropriate structures and support required to allow this diversity to flourish.

The following presentations looked at a selection of the case studies examined in the 'Community Energy Initiative' project.

The Community Renewables Initiative: lessons learnt – *James Markwick, Countryside Agency & Ian Bacon, TV Energy*

James Marwick of the Countryside Agency outlined the Agency's key role in supporting community energy initiatives. The Community Renewables Initiative has been operating for five years, providing advice and support to projects in England. In addition to developing renewable energy technologies at the local level, these projects have also been instrumental in developing community capacity in it widest sense. Ian Brown from T.V. Energy illustrated this with the examples of two schools in Buckinghamshire where RET projects have been established.

Energising Gamblesby, Cumbria: lessons and future intentions – *Bill Mitchell, Gamblesby Community Energy Project*

Bill Mitchell outlined the aims of the project and the difficulties encountered in installing RET as part of the revitalisation of the village hall, again emphasising how the project was instrumental in bringing the community together and at the same time, developing knowledge and skills.

The Highlands and Islands approach – *Nicholas Gubbins, Highlands and Islands Community Energy Company*
Nicholas Gubbins of the Highlands and Islands Community Energy Company explained the particular problems facing more remote communities. In particular the high fuel costs, 'end of line' problems of supply disruption and, in the case of the Highlands and Islands, fuel poverty. In this situation, community energy projects can develop local energy independence, reduce costs and contribute towards capacity building and economic and community development.

Community renewable energy in Wales – *Jenny Lampard, Mid-Wales Energy Agency*

The experience in Wales is somewhat similar. Jenny Lampard of the Mid Wales Development Agency outlined two projects which showed the experience in Wales to be somewhat similar – Llanwddyn Community Heating and the Bro Dyfi Community Renewables Projects, and echoed the previous speakers' remarks, that the production of local renewable energy should be seen as part of a wider process of community capacity building, empowerment and awareness.

Comparing case studies of community projects – *Prof. Gordon Walker, University of Lancaster*

Gordon Walker spoke about the comparisons of the various case studies that had been undertaken as part of the 'Community Energy Initiative' project. After an introduction to the methods used for selecting the case studies, the key similarities and differences between the case studies were highlighted, along with the various ownership models identified (community company, public body, existing community organisation, private ownership, energy services company and co-operative). The 'process' and 'outcome' are two key dimensions in the perception of whether the projects are seen as 'community' projects in some way – the six case studies were distributed along these axes, illustrating that what counts as 'community' can be flexibly defined. The presentation emphasised

the challenges that can be faced by community energy projects, but that there are many positive benefits that can result, including wider learning outcomes.

Plenary Discussion

The afternoon session consisted of an open debate preceded by contributions from four panel discussants, Neil Evans (Energy for Sustainable Development Ltd), Dan McCallum (Awel Aman Tawe Community Energy Project) and Martin Fodor (Environment Agency).

The following is a summary of the main points of the discussion:

- The Awel Aman Tawe Community Energy Project included education and training, teaching people to 'do' consultation and focus groups, it came out of Agenda 21 discussions. Social learning as a result of controversy was stressed, dividing the community had brought it together in a sense, it was good that the production of opposition leaflets and web-sites had encouraged people to learn skills, and both pros and antis have gone on to work with a number of other 'community' organisations.
- There is an attempt to develop the idea that 'size doesn't matter' in developments.
- On the climate change question, people definitely have a higher awareness as a result of AAT, although the details are taken from the TV, the awareness is probably as a result of the project itself.
- On maintenance, AAT have worked with local companies on heating pipes and are addressing maintenance for the windfarm, they could sign a 10-yr contract with a commercial organisation, or else train up local people to do it.
- The Community Renewables Initiative (CRI) hasn't yet delivered megawatts, but has delivered many projects. Moel Moelogan was /will be quite big, and there is a feeling we are on the cusp of a step change, with many more big projects, with a comparison to the earlier scene in Denmark and Germany, where 50% of projects were owned by co-operatives and farmers, which historically led to the development of a multi-national industry. Venture capitalists have been identified who are interested in small scale projects, the money is there for social packages in particular, and may lead to the development of more microgeneration.
- 'Assessors' of funding bids had had problems too in understanding exactly what 'community' meant. In different funding processes the definition of 'building' and 'community' were variously relevant and problematic. A variety in the scale of projects was acknowledged. It was pointed out that even 'failures' (said to be hard to research) lead to outcomes.
- In the case of a public health alliance approaching a community about public health, the community had defined the best contribution that could be made as being play-areas for children – meaning that imposing a pre-determined solution (like renewable energy) might not necessarily be the 'right' answer, but may mark the start of the process of finding solutions.
- In regeneration projects, the community generally wants outcomes to which renewable energy can be added. It was pointed out that there is a small pot of money being chased by many, with 5/6 being turned down. Feasibility studies were said to be very important, Clear Skies stopped funding them early on, but support for them was important.
- Community development in itself was said to be important too, with different forms of success. Despite the concentration on rural schemes, it was pointed out

that urban community energy projects do exist. The tensions between different institutions, in terms of goals, timescales, deadlines and funding criteria, were highlighted.

- 'Parachuting in' short-term solutions in certain communities historically has been seen as problematic. The long-term sustainability of community renewables, along with the generation of income streams, were probably the most important aspects in such communities.
- Demonstration schemes were described as an intermediary on the way to both large scale renewables projects and microgeneration, especially in the UK with its historically slow switch to renewables, with the aid to the specific technology markets and the learning that is involved.
- Community renewables projects could represent a more permanent and localised solution to energy issues, if rooted in communities and linked to e.g. energy efficiency. CSE in Bristol was mentioned, and schemes in public sector realms (schools, community centres) were seen as important, with the local authority representing its community and being part of the solution too. It was admitted that there was no large scale policy change as yet, but that the research project discussed at this workshop was an important step in scaling up across the UK.
- The problem with demonstration projects is that 'anyone can do anything with a grant'. The educational factors were seen as OK, but government might view it as merely an 'add-on' to general community projects.
- Renewables need to be everywhere at all scales to make a difference in terms of climate change mitigation. There was a danger of renewables being marginalised as 'funny stuff over there'.
- The progress towards the 10% 2010 target was described as slight, 'it's not getting there'. Larger projects, in which the community don't so much own the technology as own the choice to have it have a role to play; there was a comparison with other development projects, for example 'people don't object to Tescos', but there were objections seen with any development 'above ground'. Government policy should be to reinforce the benefits of renewables, and communities should support it – Government needs to 'help communities understand'.
- There is a definite need for larger projects, so the concentration should be on how the benefits accrue to communities, either through community ownership, or the 'community package' method.
- There was a concern that it was wrong to couple 'community' and 'energy', and that the axes of analysis presented by Gordon Walker were wrong and too value-laden. People are committed to tackling climate change, they want a simple and straightforward response from the Government – the Scottish response was put forward as an example. Government has to 'underwrite the risk' where necessary. There is a need for the utilities to supply 1000s, not 100s, of MWs, as there is one approach to carbon, and another to 'communities'.
- 'Environment' and 'community' are both being bandied about by both Blair and now Cameron. Sustainability was being used as an 'add-on'. There is a worry that there might be a drive by government to spend less money by putting both aims in one box. The money involved is also too small.
- The problem is that renewables are not supported across Government in a systematic way. 'What's wrong with large-scale development?', why don't the government get the utilities into communities, or else use places with small or

newly-created communities? ‘Do it first’, then approach the communities, and implement large scale demonstration projects.

- Centralised and large-scale provision has been the model in the UK at least since the Second World War in Europe: they expect localised facilities and utilities, local energy providers, transport etc.
- Large scale projects under the utilities are not likely to either listen to communities, or to share the benefits? Maybe they will learn? Large scale projects have large impacts in many areas, so we have to be wary.
- To address the question of whether we should have a narrow definition of ‘community renewables’ [open process plus localised benefits], we need to find solutions with whatever is available, including waste in the case of both urban and rural projects. We definitely need to consider the local benefits. RDAs and Partnerships could bypass community concerns for ‘carbon’ reasons, but this is likely to generate opposition.
- Gordon Walker’s presentation stated that the projects had not given rise to learning about climate change, according to the respondents. Did this mean that they already knew about and accepted climate change? And that they thought that Government needs to tackle it? Or that they don’t believe it is happening? Climate change is the key driver for renewables, but why has it not figured in these projects?
- Addressing ‘community’: there are some genuine ‘community projects’, such as Gamblesby, that provide no real financial benefits, but create or reinforce a more sustainable community. Gamblesby was distinctive because it needed the community to be there in the first place to make it happen, whereas many other projects simply wouldn’t have survived without the financial package and the profit motive.
- Are the maintenance and operation of the projects a responsibility of the community?
- Gamblesby was a ‘one-off’ in having non-commercial drivers, but it is on a spectrum from small community schemes to large scale commercial projects. The important thing is to get action, which means using money from wherever.
- The funding structure should be rethought. A combined advice and funding body would be good, ‘do it like the Scottish do’. The Climate Change and Sustainable Energy Bill was a good sign. Giving targets to the community might give some power to the local area, but also defines ‘community renewables’ restrictively.
- On failure, there are heroic things done to avert failures, especially of innovative projects, and even narrowly defined economic ‘failures’ are actually often technology and learning successes, in actually getting the ‘kit’ working. Projects often fail if there is no single, ambitious steering group in control, or else if they are over-ambitious.
- On policy, in the CRI’s next phase, the government should set up a fully-funded scheme on managing carbon, not just renewables. The ‘wasteless society’ idea was coming from another discourse. What was needed was joined-up government and coordination around carbon. A single focus, with a simplified grants scheme was required, including letting people know realistically how much money they could expect to get, to avoid raising expectations unnecessarily.
- A commitment to local or community engagement is vital, and an acknowledgement of a diversity of solutions, including the importance of building. The UK is not used to collective solutions. Raising expectations is to be supported! There should be long term engagement with the users, and with the affected,

thinking about how to get people on board in order to make schemes work, right from the start. The community should share in that, and RDAs should recognise that local inputs are needed all the way through a process. On maintenance, this would be sorted out through long-term engagement being stressed from the start.

- Large scale projects can take care of themselves, there are applications and enquiries going ahead.
- Microgeneration is not yet cost-effective, and a stick approach is needed: use building regulations to make e.g. solar water heating mandatory for all new buildings, this would drive down industry costs and prices for those who wish to retro-fit. Similarly, micro-turbines could be forced onto all new buildings or houses.

APPENDIX A

COMMUNITY ENERGY INITIATIVES PROJECT: EMBEDDING SUSTAINABLE TECHNOLOGY AT A LOCAL LEVEL

This research project is funded by the Economic and Social Research Council under the Sustainable Technologies Programme. The research involved interviews with key policy makers and programme managers, the construction of a national database of community projects, regional interviews and six in-depth case studies. The key findings and policy implications of the project are summarised below:

- There are now many examples in the UK of how community renewable energy projects can be successfully developed to produce not only clean energy, but also social and economic benefits for local people. These range from biomass fuelled district heating networks, to ground source heat pumps, PV for community buildings and locally owned wind turbines.

- Government support for community renewable energy, in the form of multiple funding and support programmes established over the past 5 years, has emerged through a coalescence of diverse policy drivers and has played an important role in supporting the growth in local activity. Non-governmental initiatives and grassroots networks have also been important in promoting new co-operative models and stimulating local action, building on long standing advocacy for and demonstrations of small-scale community-based approaches.

- Community renewable energy now covers many different forms and scales of technology, ways of operating and supplying heat and electricity, approaches to project development and patterns of local benefit. This diversity needs to be better recognised and is a key feature of how renewable energy technologies can be used in ways which fit local circumstances.

- Community renewable energy has provided a means of addressing a wide range of local problems – such as supplying affordable heat for a village hall, supporting local forestry, providing a new income stream for local farmers or sustaining a declining rural community. This problem focus is often a key initial driver for getting projects going, creating opportunities for integrating renewable technologies into broader based local initiatives. Whilst some projects, such as setting up wind turbines, are primarily focused on energy generation, many are more concerned with the services and broader outcomes that renewable energy technologies can provide.

- What constitutes a ‘community’ project relates to both the process through which a project is developed and the local focus of the outcomes it produces. Different projects and initiatives emphasise these two dimensions in different ways and this flexibility has enabled a range of approaches to be taken and locally appropriate and feasible initiatives to come forward.

- Nurturing and learning from the experience of implementing and integrating sustainable technologies into varied settings and social contexts is equally important for energy futures as furthering continued technology innovation.

- A key question for policy is whether or not community renewable energy can achieve wider and accumulative impacts which extend beyond direct carbon emission reduction. These include developing greater public awareness, understanding and support for renewable technologies and building community cohesion. Our research suggest that these outcomes are being achieved, but to varying degrees. No one 'best' model of project development can fit diverse local circumstances and needs, but these wider outcomes are likely to be maximised where projects are led by local people or existing community groups, where there is already good social cohesion and where involvement and benefits are strongly collective in nature. Taking a community approach, or simply labelling an initiative as 'community', does not though provide a guarantee of local project acceptance and support.

- Many difficulties and obstacles can be experienced in the process of project development including financial, technical and operational problems. Expectations can also be unrealistic and initial ideas overambitious and unviable. There is an ongoing need for advice and practical support - particularly where projects are complex, larger scale or more novel - and for learning constructively from failure as well as from success.

- Many community renewable energy projects are also incorporating energy efficiency measures, either directly as part of building design and refurbishment, or indirectly through project income being directed to local efficiency initiatives. This should become an established practice for all projects as part of a carbon minimisation approach.

- Government support for community renewable energy over the past 5 years has involved the setting up of multiple funding and support programmes, with varied remits and rationales. There has been little overall strategic coordination and whilst actors 'on the ground' have been able to capitalise creatively on the range of opportunities and resources available, a greater degree of national and regional coordination between programmes is now needed.

- There has been a welcome recent public reinvestment in programmes to support community renewable energy - including the new Low Carbon Buildings Programme. However, total committed budgets are still small compared to other energy investments, unambitious compared to the large demand and potential that exists and insufficiently long term. A more clearly articulated strategy for how community projects and distributed generation fit within energy policy is now needed.

- There are particular needs for better learning and evaluation mechanisms to be developed, for project replication as well as innovation to be better supported across all parts of the UK, for a greater focus on realising opportunities in urban areas and for the relationship between community and householder microgeneration to be better understood and developed.

- Much more should be done to make the use of renewable energy technologies part of standard practice for new build developments, regeneration and refurbishment. Where community buildings are involved and/or the networking of buildings could be possible through local heating or electricity networks, there should be presumption that renewable and energy efficient technologies will be utilised.

- Local authorities have been significant but inconsistent in their support for local projects. All local authorities should have policies and practices which are supportive of community renewable energy and which operate in favour of regeneration and community development initiatives incorporating sustainable energy technologies.

Project Web Site: http://geography.lancs.ac.uk/cei/communityenergy.htm