Harnessing Community Energies: Explaining and Evaluating Community-Based Localism in Renewable Energy Policy in the UK

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Introduction

One of the major challenges for climate change governance is to shift, and ultimately transform, established energy supply systems based around the use of fossil fuels towards more sustainable and renewable forms. There are many complexities involved, choices available and strategic decisions needed in conceiving how such a shift and transformation can and should be achieved.[1] There are multiple "renewable" technologies, each with particular applications, technological and infrastructural needs and degrees of current and potential commercial viability and energy generation potential. There are different scales at which such technologies can be implemented, from small local off-grid applications, to major installations supplying the electricity needs of tens of thousands of households. There are issues of environmental impact and public acceptability which can be problematic for particular projects in particular places,[2] and powerful commercial and political interests that continue to lobby against both interventionist climate change policy and any future model of a distributed, renewable, non-nuclear energy supply infrastructure.[3]

In the UK, government policy for renewables has evolved rapidly over the past 15 years. Emerging from a history of insubstantial public investment in re-

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1. Komor and Bazilian 2005; and Foxon et al. 2005b.
2. Walker 1995.
3. Jeffrey 1990; and Connor 2003.

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search, development and demonstration,[4] the privatization of the energy supply utilities and infrastructures in the late 1980s opened up opportunities for new market entrants and technological diversity. This was supported by a policies providing for market subsidy and protected market share.[5] Whilst coming under criticism for its limited scope and ambitions and experiencing a range of implementation problems,[6] UK policy for renewables post-privatization has supported and subsidized the 12-fold increase in electricity generation from renewables (excluding large scale hydro electric power) between 1990 and 2004[7] and produced a proliferation of private sector funded projects across the country, particularly on-shore wind farms and energy from waste installations. Even so, total electricity from renewable sources currently amounts to only 3.6 percent of total UK generation, which is some distance from the government target of 10 percent by 2010.

Whilst taking on-board the technological diversity and varied scales of renewable energy implementation, policy for renewables through the 1990s essentially promoted a private-sector led model of project development. Whilst there were some new market entrants, the established power utility companies largely continued to play the major role. However, since 2000 a new theme has emerged in both policy discourse and the investment of public resources around the concept of "community" renewable energy development. Extending beyond the traditional exhortation that private developers should consult closely with communities potentially affected by new proposed energy projects,[8] this new discourse has incorporated notions of community led, controlled and owned renewable energy installation development. A series of government funded programs have been established with the aim of supporting, facilitating and subsidizing the setting up of "community" renewable energy projects.[9]

In this paper we seek to explain why a new community-based localism has emerged in renewable energy policy at this point in time and to assess its significance for the governance of climate change. We consider why, at face value, government policy has taken on board ideas and approaches to renewable energy project development, which were for many years the domain of "alternative technology" activists, operating outside of the mainstream.[10] We also assess the extent to which this marks a significant departure for climate change governance towards a more cooperative, multi-actor and bottom-up distributed model, linking national policy to local activism and providing spaces for innovation in both the process and form of carbon reduction activity.

4. Elliott 1992; and Connor 2003.
5. Roberts et al. 1991; Walker 1997; and Mitchell et al. 2006.
6. Walker 1997.
7. DTI 2005.
8. DTI 1994.
9. Hain et al. 2005.
10. Smith 2002.

The UK provides an interesting context within which to undertake such an analysis.[11] Whilst positioning itself as an international leader in climate change policy, there have been major debates over whether sufficient action has been taken domestically to achieve stated carbon reduction targets (a recent review has raised serious doubts as to whether the UK target of cutting emissions to 20 percent below 1990 levels by 2010 will be met[12]) and the extent to which the climate change strategy should be primarily reliant on technological solutions of various forms (renewables, new nuclear power, and carbon sequestration each being in the frame).[13] Developing an effective, coordinated and consensual governance framework across the different scales of intervention and action, has proved a major challenge. Existing and emerging tensions have appeared between short term and longer term energy policy objectives, between climate change and security of supply concerns, between newer distributed and existing centralized energy infrastructures, and between demand reduction and supply transition approaches. In this context, it is important to analyze critically the rhetoric and commitments of government support for community renewables, given both the increasing intensity and complexity of the politics circulating around climate change and energy policy and the importance of understanding the success or otherwise of new initiatives.

Our discussion draws on a project funded by the UK Economic and Social Research Council as part of the Sustainable Technologies Programme.[14] This has sought to evaluate the role of community initiatives in the implementation and embedding of sustainable energy technologies in the UK through an analysis of policy documentation, the construction of a database of renewable energy community projects, interviews with key actors and case studies of project development in Wales and the North of England. The project as a whole examines both government-led programs and networks, as well as those developed and run by nongovernmental organizations, and within the case study work considers a range of technology types, scales of project and degrees of support from government programs (given that some local community projects have been and continue to be developed independent of formal institutional support). In this paper we focus on evaluating the government led national level programs and networks through analysis of policy documentation and interviews. The local case study work is focused on the experience of project development and the dynamics and problems of community approaches on the ground, rather than on the evaluation of national support programs, and will be reported at a later stage.

11. See Bollinger 2004; and Hoffman and High-Pippert 2005 for discussion of community energy in the US.
12. DEFRA 2006.
13. See for example Sustainable Development Commission 2006; and House of Commons Environmental Audit Committee 2006.
14. See program web site http://www.sustainabletechnologies.ac.uk.

Interviews were undertaken with people involved in setting up, managing or running national level programs and networks which explicitly referred to "community" in their remit or objectives. "National" level in some cases referred to initiatives covering the UK as a whole and in others just to England, Scotland or Wales, or to initiatives that were spatially unconstrained although in practice regionally concentrated. Twelve such programs or networks (six governmental and six nongovernmental) were identified as of the end of 2004 and a total of 23 semi-structured interviews undertaken. Interviewees were selected after scoping the range of programs and networks and identifying organizations involved from secondary sources and extending this list through information gathered as the interviews progressed. In several cases more than one person associated with each program or network was interviewed, for example where there was a division between the organizations funding and managing the program; or where it was helpful to talk both to those who had been involved in the early development of the particular initiative in addition to those with current responsibilities. Interviewees were asked both to discuss their organizational aims and functions and also, at times, their own interpretation of ideas and concepts (such as the meaning of "community"). The extent to which they in practice distinguished between an organizational or personal response is difficult to reliably establish and we need to be conscious of the tactical and performative ways in which interviewees might articulate their responses to questioning.[15] Some explicitly referred to their own commitments and values, whilst others related their comments directly to their work and organizational responsibilities, or were ambiguous in their replies. Where such distinctions are important they are referred to in the discussion. Each of the interviews was transcribed and analyzed using a coding scheme which evolved as the analysis progressed. For confidentiality reasons where interviewees are quoted in the paper, the organization they work for rather than their names are provided.

Localism, Community and Energy Policy

A focus on local, community scale energy generation is not a new feature of the sustainable energy literature. It harks back to the "soft energy path" advocated since the 1970s[16] through to the present day.[17] It is also a feature of the small-scale development[18] and appropriate technology[19] literatures which have provided influential guiding principles for grassroots alternative technology activists for over 30 years.[20] In some European countries, governments have for some

15. Hoggart et al. 2002.
16. Lovins 1977.
17. Lovins et al. 2003; and Morris 2001
18. Schumacher 1974.
19. Dunn 1978.
20. Smith 2002.

time supported cooperative localized development models for wind and biomass projects (e.g., Denmark[21] and Austria[22]) and they have been intrinsic to many solar, biomass and mini-hydro projects in developing countries that are often off-grid and village-scale.[23]

However, until only recently such ideas and approaches were an anathema to UK energy policy[24] and, where they were pursued (for example at the Centre for Alternative Technology in Wales) this was outside of the mainstream energy supply system and largely without the support of government resources. The UK has a limited history of stakeholder involvement in energy planning and development. Infrastructure and technology projects have been large-scale, centrally-planned or private-sector led and driven largely by economic rather than wider environmental or social concerns.[25] The traditional energy system has been highly centralized[26] creating significant spatial and psychological distance between energy generation and use.[27]

A new emphasis on the potential benefits of a more localized and distributed pattern of energy generation[28] and on the involvement of local people and communities in renewable energy development first emerged in the discourse of government and related official and advisory bodies in the late 1990s. For example in 1999 a report from the Local Government Association called for participatory Local Agenda 21 practices to be applied to local energy planning,[29] whilst the influential Royal Commission on Environmental Pollution recommended in 2000 that every UK community should review and evaluate its demand for energy, and the ways in which these demands could be locally met, including through locally based renewable energy.[30] In a guidance document produced by the Department of Trade and Industry, also in 2000,[31] the alleged benefits of community-managed and owned projects were laid out including that *"involvement will give the community some degree of control over the scheme"*, that *"a financial return should be generated, both to the community and investors"*, and more prosaically, that *"if successful involvement in a community venture will provide a sense of satisfaction."*

This emerging discourse manifested itself in a peppering of the words "local" and "community" across various parts of the 2003 Energy White Paper. This key strategy document advocated and envisaged, for the first time in official energy policy, a more local model of future energy generation:

21. Daugaard 1997.
22. Rakos 1998.
23. E.g., Schweizer-Rees et al. 2001.
24. Walker 1997.
25. Hinshelwood 2000.
26. Guy and Marvin 1996a; Guy and Marvin 1996b; and Patterson 1999.
27. Pasqualetti 1999; and Walker 1995.
28. Pepermans et al. 2005.
29. LGA 1999.
30. RCEP 2000.
31. DTI 2000, 4.

> There is much more local generation, in part from medium to small local/community power plant, fuelled by locally grown biomass, from locally generated waste, from local wind sources, or possibly from local wave and tidal generators. These will feed local distributed networks, which can sell excess capacity into the grid.[32]

This policy rhetoric was matched by new initiatives that had already begun to be implemented by government departments and agencies in order to actively support, promote and provide funding for community renewable energy projects (see Table 1). The first of these was "Community Action for Energy" (CAFE), funded by the Department of Environment, Food and Rural Affairs (DEFRA) as a networking and support initiative to develop community capacity and encourage and enable participation of community workers, initially in energy efficiency project development, although projects involving renewable energy were also promoted. Its aims in this respect were explicitly to tap into pre-existing networks of activism and commitment to community and energy-related development work.

This was followed most significantly by the Community Renewables Initiative (CRI), established in 2002 by the Countryside Agency, which also acts as manager and coordinator of the initiative, with funding provided by the Department of Trade and Industry (DTI). Its key aim is to *"help groups and individuals realise the renewable energy can form part of the regeneration of their locality"* with a vision that through the initiative *"over the next few years, local communities . . . will be supported to propose, plan for, seek funding for, develop, own and take energy from renewable energy projects."*[33] Organized through regional "local support teams" (LSTs) for 10 areas of England, it conceived itself as having a "brokering" role, identifying opportunities for the installation of renewable energy technologies, providing information and expertise, networking organizations together and supporting project teams through the different phases of project development. Four other national programs with "community" in their title, objectives or remit rapidly followed, providing capital funding grants, extending funding and support to Scotland and focusing in some cases on the promotion of particular technology types.

In the space of two years an infrastructure of central government support for community renewable energy was therefore in place with two distinctive features. First, it collectively sought to connect the national directly to the local on a project-by-project basis, rather than using the existing structures of regional and local government to similar ends. Whilst regional and local government bodies could become involved in various ways in both support programs and the development of individual projects, they were not the conduit through which responsibilities, funding or coordination was to be directed. There was in

32. DTI 2003, 18.
33. CRI 2002, 1.

Table 1
Government led initiatives supporting and funding community renewable energy

Initiative	*Purpose*	*Date Started*	*Spatial Coverage*	*Technologies*
Community Action for Energy (CAFÉ)	Advice, information, training and support	2001	UK	Energy efficiency with related renewable energy technologies
Community Renewables Initiative (CRI)	Support and project development	2002	10 areas within England	Solar roofs, biomass and wood heat schemes, farm waste schemes, wind turbines
Clear Skies	Capital funding	2003	England, Wales and Northern Ireland	Solar thermal, wind turbines, micro/small scale hydro turbines, ground source heat pumps, room heaters/stoves with automated wood pellet feed, wood fuelled boiler systems
Scottish Community and Households Renewables Initiative (SCHRI)	Advice, support, project development and capital funding	2002	Scotland	Micro hydro-electric, micro wind, solar water and space heating, ground-source heat pumps, automated wood fuel heating systems, solar PV in dwellings not connected to the electricity grid
Community Energy	Guidance, training, development and capital grants	2002	UK	Community Heating Scheme using; heat from power generation (CHP); boilers using conventional or renewable fuels, heat from a geothermal well or heat pumps; waste heat from industrial processes or energy from waste plant
Energy Saving Trust (EST) Photovoltaics Programme	Capital grants	2002	UK	Solar photovoltaics

this way a trust placed in the capacity of local actors to take effective action without governmental direction, redolent of the "neo-communitarian" discourse and practice of devolving responsibilities to communities with "self-governance" capabilities, although arguably without its much critiqued "neo-liberal" overtones.[34] Second, there was no grand coordinating plan in place, strategically determining that a series of separate programs was the most appropriate model for achieving effective implementation and with an overall strategic objective or target in mind. Each of the programs emerged to some degree independently, under the initiative of different government departments and agencies with little initial coordination between them. Beyond the boundaries put around technology types (see last column of Table 1) there was no strategic view as to what scales or types of projects should be supported—the programs were largely responsive to what was proposed and applied for from a local level. As we discuss below this lack of strategic coordination is both reflective of the diversity of policy drivers involved and reflected in the diversity of ways in which the "community" label has been utilized.

Explanations for a New Theme in Policy

In undertaking interviews with key actors involved in the community renewable energy (RE) program and network infrastructure, it became clear that there were multiple factors contributing to the emergence of the new community-based localism in energy policy in the early 2000s. These were fragmented across the different government initiatives and were in some cases explicit in policy and program documentation, but in others far less so.

Most evident in national policy statements, was a rationale which saw the community approach as a way of overcoming a key perceived obstacle to the diffusion of renewable energy technologies—in particular of large scale onshore wind farms. Through the 1990s and what has been characterized as the "dash for wind"[35] stimulated by market arrangements for subsidizing RE generation, developers had experienced sometimes intense opposition from communities objecting to the proposed development of wind turbines in valued landscapes.[36] Explanations for why such opposition was appearing, despite general public support for the development of renewables, included poor public consultation processes by developers,[37] selection of the most windy and often most visible and valued landscapes for large scale wind farms and the lack of direct benefits to local people whilst major utility companies were seen as making money at the community's expense.[38] A community approach, it was argued—initially by pressure groups and then increasingly in official reports and commentary by

34. Henderson and Salmon 1998; and Herbert 2005.
35. Sharman 2004.
36. Woods 2003.
37. Devine Wright et al. 2001.
38. Hinshelwood 2001; Toke 2005; and Bell et al. 2005.

professionals and policy makers—could help ensure that projects were more appropriate to their locality, persuade people of their worth through providing more direct benefits to local residents (including through direct ownership) and generate less conflict through the close involvement of the community from the start of the project development process. Many of the interviewees referred to this rationale, typically attributing it to the government in an abstract rather than specific sense—the "they" in the following quote:

> There was a growing backlash against specifically large scale wind farms and they recognized that some work on hearts and minds was needed and the best way of doing that work was through working at a community level.[39]

For several interviewees this sentiment linked to a broader need: to educate the public about renewable energy through their being involved with or directly experiencing successful projects developed in their village, town or neighborhood. An "information deficit"[40] was perceived which, it was argued, could be addressed through the experiential benefits of community-based RE. The underlying assumption was that through direct experience people would become more positively orientated towards the general diffusion of RE technologies.

A second motivation for supporting community projects—and also related to energy technology diffusion—was the policy need to stimulate the market for renewables in the context of carbon reduction targets and support the development of installation and maintenance skills and infrastructures, particularly for district heating schemes and the newer solar PV technologies. Here adopting a community approach enabled the government to provide capital funding and support the market, particularly for renewable energy technologies that had fallen outside of market subsidy mechanisms up to that point, without contravening European rules on state-aid. Under this rationale the key characteristic of community RE was therefore not its collectivist or locally beneficial qualities, but its "not-for-profit" legal status, providing a route for direct government subsidy rather than the stimulation of the market through more roundabout means. This rationale was related to the specific working objectives of particular schemes, so that for Clear Skies programme providing capital funding for a range of technology installations:

> The main aim . . . was to produce standards and certify contractors, increase awareness and uptake of the technologies.[41]

> The decision was taken to support community, household and not for profit organisations, therefore it doesn't circumnavigate but it avoids the EU state regulations for supporting Capital Grant Programmes.[42]

39. Interview with program manager SCHRI, November 2004.
40. Bickerstaff and Walker 1999.
41. Interview with program manager Clear Skies, October 2004.
42. Interview with program manager Clear Skies, October 2004.

A third factor explaining the new theme of policy was an impetus related not to energy policy objectives per se, but to the social and economic outcomes that could be derived from community RE projects. In the context of a narrative of "countryside in crisis" and the urgent need for rural regeneration,[43] renewable energy projects were seen as a way to provide new sources of income and employment for communities suffering from agricultural decline, depopulation and economic collapse. This objective was particularly important for the CRI, managed by the Countryside Agency and built on extensive experience of rural community development work:

> I think it's important to realise that regeneration and local innovation is seen as a priority factor. . . . we have agreed that there are two strap lines for the initiative, and one is communities innovating for local regeneration, and the other is local solutions to climate change . . . and they've both got equal status.[44]

The three factors discussed so far relate to instrumental policy needs and objectives which coalesced for various reasons in the late 1990s. Less upfront but still present in the interviews were references to the influence of normative communitarian and participatory principles.[45] Here connections were made to learning from cooperative approaches applied in other countries such as Denmark, to the experience of developing Local Agenda 21 strategies and to more general shifts across government towards principles of openness and public involvement. For example:

> I think there has been a sense of, there's been a climate of, a culture in policy making, maybe linked to things like interest in active communities and community planning, I can use that generically and specifically, you know, in local government policy making and in central government policy making, that's sort of an involved culture of being, having measures to enable people to influence and participate in decision making.[46]

For one interviewee involved in the CAFE initiative the ambitions and drivers of their involvement in supporting community RE went much further to encompass more personal commitments to embedding a different "way of living":

> . . . you know, root and branch, change the way we approach energy and as a result, the way we live our lives and that's not going to happen as a result of a marketing campaign, that's going to happen only if we embed the importance, the methods of how to approach it, and approaches to action within the community, and hence the importance of community action.[47]

43. DEFRA 2000.
44. Interview with program manager CRI, October 2004.
45. Etzioni 2000.
46. Interview with program manager CRI, October 2004.
47. Interview with project officer CAFE, November 2004.

Given this multiplicity of policy drivers it would be wrong to characterize the arrival of the new theme of policy either as simply driven by the climate change agenda, or as representing a paradigmatic change towards a new philosophy of embedding local sustainable energy generation into a cooperative process of sustainable community development. It is rather, we would argue, a reflection of multiple largely instrumental objectives, differentiated across actors and institutions but coalescing around the notion of community. Here Hajer's concept of discourse coalitions, in which the narratives and practices of multiple actors connect around perceived shared interests to providing common framings of policy problems can provide useful analytical insight.[48] Crucial to the concept of a discourse coalition is that "real" agreement on meanings, objectives and, in particular, deeper values is not implied or required, but that such differences are contingently held in place around a set of narratives or story lines. Arguments, policies and practices are structured through these story lines providing a discursive space in which opportunities for strategic pursuit of interests can be enacted. This discursive coalition may be all the more functional, if, as in the case of "community" renewable energy, it is constructed around a concept which can be both flexible and malleable in its operationalization.

Evaluating "Community" in Renewable Energy Policy

The identification of multiple policy drivers behind the arrival of community-based localism in renewable energy policy, and the rather uncoordinated form of support infrastructure which emerged, raises questions about the nature and substance of what might then be achieved as outcomes. To what extent has action on the ground been stimulated through the "national to local" configuration of multiple programs set up in 2002 and 2003, and to what extent has this activity encompassed the more substantial ambitions and objectives behind adopting a community-based approach? At this point in time a complete assessment is not possible given the limited time over which programs and projects have been in existence, but some of the parameters of, and debates around, evaluating policy for community RE can be usefully sketched out.

There has undoubtedly been a surge in the number of renewable energy projects supported under the various programs and a great deal of local level activity which would not have taken place without central government support. In total we were able to input 509 projects supported by community labeled government programs (as of December 2004) into our project database, a number far greater than we expected to identify when the research project was first proposed in 2002.

However, the headline total of community RE projects may be a little misleading. The database of projects was identified from accessible information held by organizations managing programs or available through program and

48. Hajer 1995; 2005.

project web sites and rarely provided any more than basic project details. There is therefore considerable uncertainty in two key respects. First, it was not possible to either verify or conclude that all of the projects in the database are in reality substantial, material and successful. Given the tendency towards promoting intentions at the early stages of projects, rather than outcomes at the end, and the many practical problems identified by interviewees in getting projects off the ground, it is likely that the database to a degree over-represents the level of activity on the ground.[49]

Second, we cannot assume that all of these "community projects" involved the expected characteristics of collective community leadership, management or ownership, or substantial embedded benefits for local people, as described, for example, in the rhetoric of the Energy White paper and DTI guidance document discussed earlier. This is evidenced anecdotally from examples of projects within the database, which range from some which *do* involve extensive local participation, including community project management and ownership of various forms; to others in which it is hard to identify any form of substantial local involvement—except, for example, that renewable energy technology is to be installed in or on a community building, such as a school or village hall.

In this respect, it was clear from the interviews that the various support programs were defining the meaning of community in flexible and divergent ways. There were frequent references to "making it up as we went along" and needing to adopt a pragmatic view of how any one project was integrated into or benefited the local community. For example, relating back to the legal rationale for focusing on community organizations discussed earlier, one interviewee stated that:

> BRE (Building Research Establishment) have measured 'community' roughly. . . . there is no set definition of community within the programme . . . they have taken each case on its merits, without using a points system, just using rules of thumb. The only restriction is that they have to be not-for-profit and be a legal entity.[50]

In the case of the Community Energy program which is concerned with the installation of community scale district heating projects, community was simply defined as a group of buildings, with no further or necessary expectation of processes of communal involvement:

> The programme is called 'Community Energy', because obviously it is about linking different buildings and different constituent partners within the community together in one heating system.[51]

49. See also Hinshelwood 2001. Monitoring data for the CRI also demonstrates how relatively few projects rapidly move from initial to final stages. In Autumn 2005 there were over 2500 inquiries recorded for the previous year and only 91 delivered projects (personal communication).
50. Interview with program manager Clear Skies, October 2004.
51. Interview with program manager Community Energy, October 2004.

For others such as the CRI a greater degree of involvement of local groups and people and demonstrable local economic, social or education benefits were clearly expected, but even so the need to be flexible rather than strict and judgmental about what a community project should entail was emphasized:

> It's actually very difficult to define community, what is a community project, because I think it represents a spectrum, and I get frustrated when, particularly on the renewable energy side, people say a community project is one that, where the wind turbine is owned by the community, and actually I think that's such a small percentage, and it also devalues the whole wealth of community projects, community involvement, activities that aren't actually around projects where the community owns something . . . might be just that the community have been actively involved, and I think that approaches to community participation have to recognise that wide spectrum.[52]

This last comment opens up evidence of tensions amongst the various actors involved in community renewable energy as to what "community" should mean. A number of interviewees were critical of how the community concept had been appropriated and distorted from its "true meaning" by some of the government programs, with rhetoric and spin seen to dominate over substance. This had clear echoes of debates around the definition of sustainable development, and differences between those who have object to and those who see value and functionality in the malleability of meaning.[53] As with sustainable development, the community label provides a flexible "space" which activities and interests of various forms can occupy. Whilst some degree of appropriation may thus result, the political and rhetorical flexibility of this space also allows for innovation and creativity and the coming together of different interests and institutions under a label with largely uncontroversial cultural associations. As has been discussed in related literatures, community is a socially and culturally constructed concept, strategically deployed and locally manifest in many different and often complex forms.[54] It is therefore not surprising to find the term attached to very different processes and objectives of RE project development across the many actors involved. The degree to which this malleability can have negative consequences will be addressed again in the conclusion.

What certainly has been achieved is an enriching of the network of actors now involved in renewable energy implementation across different types of institutions and scales of operation. The CRI, in particular, has adopted an inclusive and highly networked mode of operation with a diverse profile of subsidiary partner organizations involved at a national level—including Friends of the Earth, The Country Land and Business Association, the Environment Agency, the National Farmers Union, Forestry Commission and the National Trust—

52. Interview with chair of overseeing group CAFE, November 2004.
53. Evans and Percy 1999.
54. Gilchrist 2004; and Dalby and Mackenzie 1997.

and local support teams in some cases being run by pre-existing independent energy agencies and Agenda 21 bodies (e.g., Sustainability North West and Wiltshire Agenda 21). In this respect they do appear to have successfully broadened the implementation of renewable energy policy into a partnership-based form of governance and connected a national impetus into diverse networks of action and activism at a local level.

Conclusion

For those of seeking a model of climate change governance which broadens far beyond the dictates of government[55] there is much, at face value, to be positive about the emergence of the new community-based localism in renewable energy policy. An expansive profile of national support and funding programs, a multiplicity of organizations involved in new initiatives and a surge of new project activity at a local level all suggest that community RE is finally coming of age. However, beneath the surface we have shown that there is much divergence in what the "community" in community RE has meant, and, in particular, the extent to which it can be presumed to embody any form of collective communitarian principle. Whilst some initiatives and some projects have put great store in the real involvement of ordinary citizens and local groups in making renewable energy projects happen, there are others which, for example, by defining community as a "group of buildings" or by being concerned primarily with the "non-for-profit" legal status of funded organizations, have done little to pursue or realize any form of participation, empowerment or wider civic outcome.[56]

This diversity in meaning and practice reflects the multiple drivers and rationales that have contributed to the emergence of community RE in government rhetoric and support programs. We have argued that it was a coalescence of a number of largely instrumental policy needs and objectives—both within and outside of the energy policy domain—which enabled climate change to be localized in the context of renewable energy development[57] and a community approach promoted alongside and, in support of, mainstream market-orientated energy policy. It is often a coming together of interests and actors around a new discourse which can account for shifts towards new policy approaches, languages and ways of thinking—a process which can be slow-burning until opportunities for coalescence emerge around a particular narrative, or set of narratives, of problems and solutions.[58] In this case, community RE could be constructed as providing a generic solution for public opposition to wind farms, rural regeneration, capital investment and the stimulation of the small scale RE market. When combined with a large dose of participatory

55. Betsill and Bulkeley 2004; and Bulkeley and Betsill 2005.
56. Hoffman and High-Pippert 2005.
57. Betsill 2001.
58. Hajer 1995; and Owens and Cowell 2002.

rhetoric and connecting to long standing themes of grassroots activism, a "discursive coalition" of interests could be constructed.

The functionality of "community" as an emblem for this coalition, and a label for new activity on the part of government institutions, undoubtedly reflects its "benighted" status and persistent well of warm-hearted association. However, it has also proved capable of accommodating a necessary diversity in the scale, type and purpose of small scale renewable energy project development, and, along with the under-strategized and hands-off approach to connecting national programs to local action, has provided opportunities for experimentation with different models of project management, ownership and distribution of benefits. Whilst therefore from a normative position we could be critical of the degree to which the meaning of community RE has been stretched, pragmatically its malleability appears to have been purposeful and productive in supporting many different types and forms of local renewable energy activity. Perhaps the critical judgment here is the extent to which the "shallow" use of the term community, to include essentially technical projects with minimal local collective involvement or benefit, is corrosive of deeper principles of socialized, locally-led and owned distributed generation. If both models can readily co-exist and prosper under a community banner, then maybe little harm is overtly being done. However, it will be necessary to guard against both the longer term dissipation of grassroots energies and the covert legitimization of poorly conceived private interest projects as community-driven if this conclusion is to be maintained.

This cautious acceptance of flexibility and diversity in community RE does little, however, to resolve problems of evaluation. Whilst the future trajectory for government support for community RE in the UK will undoubtedly rest substantially on how the "big scene" of contested energy politics plays out over the next few years, it will also depend on how the various government initiatives now in operation are evaluated and on the outcome of contests for the articulation of success or failure. If the primary evaluative lens is direct contributions to carbon reduction, then, given the scale of reductions that are needed to meet international and domestic targets and the urgency with which such reductions need to be achieved, public funds may be judged to be poorly spent. Despite some optimism about the total capacity within the UK for small scale RE,[59] it would take an enormous number of ground source heat pumps and biomass wood burners to make a dent in the carbon emissions of the UK, on a scale far beyond the current scope and resource commitment of the programs we have examined.

However, the many claims made for the benefits of community RE suggest that a more holistic evaluative frame needs to be adopted. Indeed a key question is whether or not the outcomes of government support for small-scale, localized community energy projects can add up to more than the sum of the "small parts" of renewable energy generation and carbon reduction. Are there

59. Hain 2005.

impacts more subtle, distant in space and time or accumulative, which a multiplicity of small projects can help realize?

Identifying and "measuring" such categories of outcome is undoubtedly problematic. For example, one potential accumulative outcome is that explicit involvement in or implicit exposure to community RE projects gives "the public" a positive view of RE more generally, thus supporting RE technology diffusion at both smaller (micro household) and larger (macro utility) scales. Another possibility is that this route of support for new technologies creates a particular "niche", to use the language of sustainable transition management, within which creativity and innovation in the social organization of technology can occur (including different configurations and scales of technology and models of project development and ownership), the necessary support infrastructure can be developed and social learning can take place.[60] Such ideas have not explicitly driven policy development in the UK, beyond less sophisticated notions of "stimulating the market" (in contrast to the Netherlands where models of sustainable transition and niche management have formally shaped sustainable energy policy[61]) but the conditions for niche development and experimentation may still exist within the approach to supporting community project development that has rather organically emerged in the UK.

Establishing that such forms of outcome are being achieved and under what conditions, will require project-scale evaluation that is extended, sensitive and in-depth—qualities that are rarely observed in standard tick-box approaches to program monitoring that fit into short-term budgetary timescales. Unless such outcomes are taken as "an article of faith," which they clearly can be if key actors interests are served, simplistic approaches to evaluation are unlikely to form the evidence base on which the support of public resources can be maintained.[62] There is therefore a key need for those involved to both continue to work towards realizing the multiple project level outcomes that small scale community energy projects can achieve, and to find ways of strategically demonstrating the accumulative, larger scale and longer term significance of national level support for local level activity.

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60. Kemp et al., 1998; and Smith 2002.
61. Elzen et al., 2004.
62. It is interesting to note a recent announcement that the CRI is to receive an additional £400,000 of funding to extend its operation and that the evaluation which helped to justify this generated both quantitative and qualitative evidence of impacts at a project scale.

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