

Maintaining Momentum in Bristol Community Energy

Project report, June 2013

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Abbreviations

BAME	Black and Minority Ethnic
BCC	Bristol City Council
BCSfE	Bristol Community Strategy for Energy
BEN	Bristol Energy Network
BHEU	Bristol Home Energy Upgrade
BRITE	Bristol Retrofitting – Innovative Technologies for Everyone
CE	Community energy
CSE	Centre for Sustainable Energy
DECC	Department for Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
ECO	Energy Company Obligation
ELENA	European Local Energy Assistance
EMR	Electricity Market Reform
EPSRC	Engineering and Physical Sciences Research Council
ESCO	Energy Services Company
ESRC	Economic and Social Research Council
FIT	Feed in Tariff
IEA	International Energy Agency
LEAF	Local Energy Assessment Fund
RHI	Renewable Heat Incentive
RHPP	Renewable Heat Premium Payments

Executive Summary

The UK energy landscape in 2012/13 is at a pivotal point with the launch of the 'Green Deal' and other Government policy initiatives particularly designed to encourage energy efficiency and small scale renewable generation in ways not previously seen at the domestic scale. However, green energy policy rarely connects or co-ordinates with community activism. In Bristol, local community energy groups were particularly successful in securing grants from the Department for Energy and Climate Change (DECC) at the start of 2012, with the support of two crucial broker organisations – the Centre for Sustainable Energy (CSE) and the Bristol Energy Network (BEN). The City Council has also secured funding from DECC to pilot Green Deal type mechanisms; and European funding for energy initiatives. All of these put the city in a unique position to further develop community engagement in green energy policy at a local level. This report considers the potential for interaction, the (potential) roles of broker organisations and draws on recent experiences for the lessons learnt.

The project looked at the following key questions:

- 'What structures, processes and practical arrangements best allow brokers to continue to 'manage up and manage down'?
- 'Specifically, in the Bristol context, what are CSE and BEN's roles in acting as brokers between energy policy frameworks and community energy groups?'
- 'How can BEN harness community energy in ways that continue to both *engage* communities and *constructively link with* (ideally even shape) complex formal policy initiatives (such as the Green Deal)?'

This report contains a number of sections looking at particular areas of community energy from background research, to the particular issues in Bristol, to future potential; and these are summarised below.

Section 2: 'Background' draws on academic research into 'community energy' to identify the characteristics of the sector and the theoretical underpinning, both for analysis and future development in considering issues such as social change and equity. It then considers what we can learn from international comparisons; and reflects on the UK policy background and key policies for energy efficiency and renewable energy.

Section 3: 'The Bristol Context for community energy' introduces the Bristol groups and initiatives and identifies some lessons that can be drawn from the recent grant experiences. It looks at the limitations of the sector and extent of connectedness across the city.

Section 4: 'Lessons from other sectors' examines the experiences of water and co-operative housing. A key point from the housing co-operatives is that this sector flourished when the secondary co-ops, which supported the local housing co-ops, were active and able to provide a range of overarching support such as legal, financial, promotional and developmental services – this structure could be reflected in the local community energy groups and the 'intermediary' organisations such as CSE and BEN. In the experiences of regulator and activist engagement in

water services two important trade-offs were identified: i) between building community capacity (more slowly) and buying in technical expertise (quick fix) and ii) between improving social capital and maximising profit / value for money.

Section 5: 'The opportunities and challenges for community groups and 'brokers' examines how and where community groups and intermediary organisations can interact with policy and the limitations and barriers – drawing on some of the experiences of recent local activity.

Section 6: 'Areas for further research and action' first outlines some areas where further academic research would be beneficial in looking at Bristol community energy in particular. It then makes some suggestions for future action by BEN and the community groups based on the work of this project. For example, the need to seek a more solid resource base and to clarify the roles and needs of groups and the potential for future interaction with local and national policy.

We conclude by drawing together the strands of the project and the key issues raised for future community energy activity in Bristol.

1. Introduction

Green energy policy, from emissions targets to retrofitting, has rarely connected or coordinated with community activism. However, a recent burst of activity within Bristol, building on long-developing community work around energy, has opened a 'window of innovation' which this project aims to build on. This activity followed the awarding of nine grants by the Department of Energy and Climate Change (DECC) from the Local Energy Assessment Fund ("LEAF grants") to Bristol-based community energy projects at the start of 2012. This considerable success (the same number of projects were funded in the London area within the M25) was in part due to assistance and support provided by two crucial 'broker' organisations: Bristol Energy Network (BEN) and the Centre for Sustainable Energy (CSE). In effect, these organisations acted as a hinge between citizen engagement and the regulatory structures of green energy policy at the household level. In particular, they offered facilitation and support to help groups through the complexities of the LEAF offer. Through CSE/BEN the opportunity of LEAF was spread quickly, CSE offered bid writing support and work packages that could be rapidly taken up. BEN gave letters of support and means to share findings/experience with wider audiences which was important in the funding criteria. The nine community organisations reported back to DECC at the end of April 2012.

Later in 2012, the Green Deal was launched by the UK national government. The Green Deal is a major national policy initiative providing a legal framework that will enable householders to borrow money from private financial institutions to retrofit their houses with energy efficiency measures, with no upfront payments (since the loans will be attached to utility bills) and potentially no direct financial outlay even over time (since the base utility bills will decrease due to the retrofit and the loan will be paid off by the difference). The Green Deal is set up to be one of the nation's key green energy policies at the household level for the next few years and the LEAF grants were created in part to prepare communities for its launch; as well as, for example, funding feasibility studies for community renewables.

There was thus a unique and timely window of opportunity to work with these organisations and intermediary ‘brokers’ as they seek ways to maintain momentum after seed funding ends. Bristol is developing a national reputation as a city that is responding to national energy policy initiatives in a more bottom-up, community-focused way than many other cities in the UK. Bristol Green Doors (www.bristolgreendoors.org), for example, is an earlier community-based initiative in this field that is starting to roll-out and advise other groups nationally. There is potential for something similar to happen in relation to current energy policies such as the Green Deal and the roles of community groups and intermediaries, so the timing was ripe for a process of knowledge exchange that could facilitate that.

The aim of the project was to support intermediaries as ‘knowledge brokers’ and ‘policy translators’ in the field of green energy policy in helping communities maintain momentum from seed grants. In order to do this, the project explored how intermediaries can support community groups in making sense of the top-down policy emerging from Government, helping to identify the potential for community action and sharing knowledge of what can and has been done and what works.

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- ‘How can BEN harness community energy in ways that continue to both *engage* communities and *constructively link with* (ideally even shape) complex formal policy initiatives (such as the Green Deal)?’

Some definitions

At this point we should introduce the local organisations noted above: the Centre for Sustainable Energy is a Bristol-based national non-profit organisation addressing energy issues across all sectors whilst the Bristol Energy Network is an umbrella organisation for all the community energy groups in Bristol and the surrounding area. It aims to facilitate and promote the diverse activities and projects undertaken by its community energy group members, sharing news and resources¹.

In the context of this report, we are defining community energy as initiatives and projects set up by and for the community and which aspire to have real local benefits.

¹ <http://www.bristolenergynetwork.org/about>

Brief methodology

In order to consider these questions, we looked first at the experience of the LEAF projects through an analysis of the final project report documents and via an online survey. The online survey was sent out to all the Bristol-area energy groups and explored not just the LEAF projects but also how the groups were set up, their past, current and future plans for energy projects and their perceptions of future potentials and barriers to activity.

In addition, background research looked at analogies with other sectors such as co-operative housing, explored the growing literature on community energy and examined the potential for community group and 'broker' action within current policy initiatives.

We then worked with the groups through the September 2012 Bristol Energy Forum and subsequent bi-monthly BEN meetings to discuss the interim findings of the research and test emerging hypotheses. This report summarises the literature, the survey results, the process of working with the groups, and tentative responses to the hypotheses. It is also worth noting that further work funded by additional sources will enable us to go beyond this report, culminating in an event at the Bristol Big Green Week 2013 that will help contextualise the findings of this report in light of related national research on community energy, as well as connecting to the launch of the Bristol Community Strategy for Energy.

2. Background

2.1 Wider research context

Previous research by Bronwen Morgan and Morag McDermont, who initiated this project, provides understanding of how to:

- make regulatory design more responsive to the energies of community-based citizen activism;
- foster the capacity of rights-based activism to leave a lasting institutional legacy;
- link the expertise of citizens' experience with formal technocratic policy processes.

Bronwen Morgan's prior research on successful engagement between social activists and regulatory technocrats in water service provision has transferable lessons for making regulatory design more responsive to the energies of community-based citizen activism and for fostering the capacity of rights-based activism to leave a lasting institutional legacy (Morgan 2008, 2011). Morag McDermont's work on housing (McDermont 2010; McDermont and Cowan 2009) enables us to draw parallels between community energy and the community-based voluntary housing associations and co-operatives of the late-1960s and early 70s.

Building on Morgan and McDermont's research, the project aimed to:

- i) Identify different strategies that can help CSE and BEN to function effectively as brokers between national and local green energy policy frameworks and local community groups and small businesses.
- ii) Draw on understandings of the role of community-based organisations in delivering national strategy imperatives in housing, and learn from the potentialities and limitations of being 'experts-by-experience', thus helping to identify the possibilities and dangers of the different models proposed for taking CSE, BEN and the local groups forwards.

2.2 Community energy in the UK – drawing on the literature

(see separate report for full literature review)

The academic literature on community energy comprises a growing and increasingly diverse field of inquiry. The recent flurry of policy initiatives seeking to catalyse community energy activities has attracted both optimism and expressions of caution from researchers. This section outlines three discernable sets of responses within which the academic debate has taken place.

Rhetoric or Empowerment?

Responding to the recent policy focus on 'community energy', Seyfang *et al.* (2012) warn that the extent to which this represents evidence-based policy-making is unclear. Their report *Community Energy in the UK* presents the findings of the first national-scale survey conducted by an independent body which specifically targets community energy groups. This study collated

empirical evidence regarding the groups' aims and objectives, activities and networking, strengths and weaknesses, and the opportunities and threats presented by wider contexts. From the extensive detail contained within the report, the authors draw the following main conclusions:

1) *Community energy is not reducible to a single entity*

This diversity has several ramifications for its effective governance, including a need for joined-up thinking among government departments and a requirement that performance measurement and project evaluation can acknowledge multiple sets of objectives.

2) *The civil society basis of the sector is fundamental to its character and success*

Voluntarism distinguishes most groups from many of the organisations they aim to work alongside. Vulnerabilities and tensions emerge from this disjuncture: the growth potential of voluntary groups is uncertain and there are barriers to overcome if they are to become more business-like and commercial.

The authors distinguish internal from external success factors and stress that regardless of the strength of particular groups, *external sources of support are required for their continued success*. They state that there is a 'strong need for consistent policy support, *as well as intermediary networks*, to ensure community energy projects have the resources they need to progress and achieve their objectives' (Seyfang *et al.* 2012: 22). This recommendation is of direct relevance to the Bristol context, with BEN an established intermediary network capable of bridging the thorny divide between its member groups' foundations in civil society and the formal demands of the increasingly business-modelled and revenue-based policy regime that we see with the Green Deal and Feed-in Tariff structures.

Walker *et al.* (2007) examine government-led energy programs which specifically target a role for community groups. They conclude that whilst there is much to be positive about regarding national support for community energy, some initiatives have done little to realise any form of real participation, empowerment or wider civic outcome but rather use the labels of 'local' and 'community' to frame pre-standing instrumental policy needs and objectives. To avert long-term dissipation of grass-roots energies, these authors urge careful consideration amongst participants regarding how to address *the key issue of evaluation*. They suggest that a more holistic evaluative framework is required, capable of strategically demonstrating the subtle and accumulative cultural impacts that a multiplicity of small projects can help realise. This would require 'extended, sensitive and in-depth' project-scale evaluation – 'qualities that are rarely observed in standard tick-box approaches to programme monitoring that fit into short-term budgetary timescales' (Walker *et al.* 2007: 79).

Social Change: Which Theory?

There are a number of theoretical approaches which can be used to make sense of the range of activities which comprise 'community energy'. There are distinctions in the literature between a systems/structure perspective and a behaviour/agency-based position, whilst others adopt a meso-level perspective based on social 'practices'. Each level of analysis has its own advantages and drawbacks and produces quite distinct recommendations for action.

Strategic Niche Management / Multi-level perspective/Systems theory (e.g. Elzen *et al.* 2004, Grin *et al.* 2010, Seyfang and Haxeltine 2012, Seyfang *et al.* 2010)

- Focuses on the system-wide transformation required to realise a low carbon future. Innovative practices will be of limited effectiveness if they are unable to diffuse beyond the 'niche'.
- Emphasises the need for networking mechanisms, aggregation and shared learning, technology diffusion and collective communications.
- Favours an action-oriented approach to social learning.

Behavioural Theory (e.g. DEFRA 2008)

- Focuses on the importance of individual behaviour and lifestyle changes. Macro-level interventions which ignore the psychological determinants of individual decision-making will be ineffective.
- Emphasises strategies which 'go with the grain' of our often less-than-rational behaviour.
- Favours an individual/psychological approach to social change.

Social Practice Theory (e.g. Shove *et al.* 2012, Shove & Pantzar 2005, Hargreaves *et al.* 2011)

- Focuses on the social context of human action and decision-making. System-wide shifts cannot occur without redressing the dynamics of our normal, everyday practices.
- Emphasises strategies which promote uptake of low-energy/sustainable practices.
- Favours an integrated, relational approach to social change.

Our work with Bristol community energy groups has favoured the first approach, although we also drew insight from some strands of social practice theory, which seeks to marry the advantages of other approaches. Much current policy favours the behavioural approach, as exemplified by DEFRA's framework (2008).

Social Justice and Equity

Park (2012) examines how issues of equity and justice are embedded in the capacities of diverse communities to engage with sustainable energy generation and consumption. This study highlights a strong but under-emphasised discrepancy between rhetoric and political action in a series of policies and grant funding programmes designed to facilitate community involvement. The concentration of funding for the same type of groups, to the detriment of more informal and financially vulnerable communities, indicates a need for all stakeholders to take equity issues more seriously. Catney *et al.* (2012) reach similar conclusions, adopting a broadly critical perspective on what they call 'Big Society Localism'. They argue that while rhetorical emphasis on 'community' and 'doing things locally' speaks the language of empowerment, it neglects crucial social and distributional justice considerations. They contend that many communities are poorly positioned to take advantage of competitive funding schemes and that some approaches actively detach moral responsibility for areas they term 'localism's wastelands' (Catney *et al.* 2012: 2). The authors conclude that by relying purely on market mechanisms and incentive schemes, the localist agenda risks alienating an 'energy underclass' and thus further entrenching already deep-rooted socio-economic inequalities.

Bulkeley & Fuller's (2012) review draws an interesting distinction between the equity credentials of government-led programmes and those provided by private and civil society actors. Whilst often proving challenging in practice, engaging 'hard-to-reach' groups was at least one of the key stated aims of most government-led programmes under review. In contrast, most programmes initiated by private or civil society actors did not consider the distributional aspects of their programmes in explicit terms. Furthermore, the review found no evidence that the costs of these programmes were considered at all; focusing purely on the environmental benefits of achieving low carbon communities, the social inequalities which underwrite this issue were left largely absent from view. The review also found that the most frequent way in which equity issues were addressed was through a focus on 'fuel poverty', a concept which goes some way to illuminating the structural inequalities behind energy use. The reviewers express concern, however, that this remains a 'circumscribed concept' and that 'wider issues of vulnerability and inequality may pass unnoticed' as a result of its overuse. The discursive popularity of this 'catch-all' concept itself indicates the difficulties we face when trying to communicate the complexities of social injustice, particularly in the context of climate change.

2.3 International perspectives on community energy

The scope of this report does not give space for any systematic consideration of international perspectives on community energy, but we note here some interesting broad trends, some that are *distinguished* from the UK situation and others that offer more direct lessons.

On the distinctive front, community energy developments in both the US and Germany are well-developed, but the greatest successes give some pause in terms of their replicability in the Bristol community energy context. First, the focus in both places tends to be on locally owned renewable capacity rather than on energy efficiency or household stock retrofit as in the UK. In Germany, 15% of all renewable energy capacity is owned by communities (Co-operatives UK 2012). Second, both Germany and US experiences indicate a very high salience of technical and professional expertise to set-up successfully. In Germany, this expertise focuses on complex Energy Services Company (ESCO) structures and the associated documentation. In the US, it focuses more on legalistic interactions with Public Utility Commissions. Third, it is quite often the case that the most successful examples of community energy in these contexts have been in either rural settings or small regional towns, making the lessons for large cities less obvious.

Some international experience, however, suggests that policy structures can provide a favourable framework that can either dilute the need for substantial professional and technical expertise or assist grass-roots community engagement in building it up gradually. In Denmark, for example, where in 2005 approximately 80% of onshore wind turbines in Denmark were owned by individuals or wind co-operatives (CSE 2005), the well-developed experience of community energy arguably relies less on substantial professional and technical expertise.

In this respect it is interesting to note that Australia, which has a *less* developed community energy sector in comparison with the UK, recently developed its first community wind farm under the leadership of a frustrated Danish immigrant. The current Australian context may provide some

transferable lessons for the UK, especially in relation to the type of services provided by intermediary organisations.

In the Australian community renewable energy sector (Ison *et al.* 2012: 17), the support services provided by intermediary organisations are less likely to be specialised technical or professional ones (such as developing legal structures, raising capital, making planning applications, distributing financial benefits or delivering technical aspects of the project such as grid connection, construction and maintenance or retailing electricity). Rather, support organisations tend to focus their efforts on more generalised, broader services such as campaigning and advocacy, community engagement and capacity-building, and on supporting the early stages of forming a group and securing initial funding.

The most demanding services (and most difficult to obtain *pro bono*) were i) the combination of legal and financial support necessary to raise capital investment and distribute returns; and ii) negotiating fair contracts with distributors in the absence of clear legal grid connection frameworks. More generally, 'unfamiliar business models and legal structures' make it hard to find partners to work with (Ison *et al.* 2012: 45). Some innovative work is currently being carried out by non-profit intermediary organisations such as Embark (www.embark.com.au) and Community Power Agency (www.cpagency.org.au) to fill these and other gaps. Two other approaches are also valuable:

- Commercial-community collaboration embedding a degree of local community ownership in larger-scale commercial projects (e.g. owning one wind turbine on a larger commercial farm; (Ison *et al.* 2012: 56)).
- Access to a network of government agency and industry expertise, especially authoritative interpretation of government policies and procedures (e.g. funding of local 'support and development officers' for specific projects: (Lodge 2011)).

2.4 UK Policy perspectives

In this section we look at the UK's evolving energy policy context. We start with an overview, focusing particularly on energy efficiency, and then survey the range of current (at the start of 2013) policy initiatives at national and local levels which provide opportunities for developing the community energy sector and which could act as conduits between the grassroots level and engagement with national policy.

Overview

Energy efficiency and demand reduction comprise one of the two pillars of UK energy policy, the other focusing on supply-side issues and energy security. The overarching theme of both policy approaches in the last two decades has been the use of the market to achieve policy goals. According to a recent International Energy Agency (IEA) review, 'the UK is among those IEA countries that most rely on market actors, responses to price signals and private participation' (IEA 2007). The combination of policies comprising the Electricity Market Reform (EMR) package, however, which aims to radically restructure the UK's electricity industry over the next ten years,

marks a significant departure from the market-based principles underpinning previous interventions.² While the success of EMR remains to be seen, policy-makers concur with the IEA that this reform should be viewed as an interim measure aimed to ensure more liberalised markets for low-carbon generation in the future (IEA 2012).

Efficiency and demand reduction measures are often viewed as more cost-effective than supply-side interventions (DEFRA 2006). Early demand-side approaches, like the Energy Efficiency Commitment (2005-2008) and the Carbon Emissions Reduction Target (2008-2012), have involved placing obligations on energy suppliers, rather than numerous end-users, to curb unnecessary demand. These policies have encouraged suppliers to exploit 'low hanging fruit' when making quick efficiency savings, leaving broader structural issues such as behaviour change relatively untouched. With such schemes focusing largely on the household sector, improving the energy efficiency of small and medium-sized enterprises, as well as large non energy-intensive industries, has remained a challenge.

DECC is the main Government department developing policy to improve energy efficiency and increase the use of renewable energy. The UK's demand-side policies have been expounded recently in DECC's first dedicated *Energy Efficiency Strategy* (DECC 2012). DECC's new strategy is something of an amalgamation of previous policies, collated together in one report. As such, it has attracted criticism for lacking new ideas or clear details of existing policies. The strategy identifies four barriers which consistently hamper efficiency improvements: an underdeveloped market, lack of information, misaligned financial incentives (i.e. the person responsible for making improvements does not receive the benefits) and the hassle costs of installation.

Specific policies

The Energy Efficiency Strategy notes the potential of current policy initiatives in relation to improving energy efficiency and the DECC website has a section on 'helping households to cut their energy bills'³ which details the current initiatives that DECC is promoting to help people use less energy. The key relevant policy initiatives are:

- **The Green Deal** – the cornerstone initiative, as noted earlier, supports homes and businesses in making energy efficiency improvements, with some or all of the cost paid for from savings on energy bills.
- **The Energy Company Obligation (ECO)** - a subsidy from energy suppliers that will work alongside the Green Deal to provide energy-saving home improvements for those most in need and for properties that are harder to treat.
- **Smart meters** – energy companies are required to install new smart gas and electricity meters that provide near real-time information on energy use in all households and small businesses by 2019.

² The main aspects of EMR are implemented in the Energy Bill, introduced to Parliament on 29 November 2012. The Energy Bill is expected to achieve Royal Assent later this year.

³ <https://www.gov.uk/government/policies/helping-households-to-cut-their-energy-bills>

The Government has encouraged local authorities to get involved with the Green Deal by piloting some of the measures with a number of local authorities – including Bristol through the Bristol Home Energy Upgrade (BHEU) scheme.

Additionally, DECC has policies for ‘increasing the use of low carbon technologies’⁴. Of particular relevance to community groups are the following:

- **Feed-in Tariffs (FITs)** scheme – pays energy users who invest in small-scale, low-carbon electricity generation systems for the electricity they generate and use, and for unused electricity they export back to the grid.
- **Renewable Heat Incentive (RHI)** – pays commercial, industrial, public, not-for-profit and community generators of renewable heat for a 20-year period. This will be open to domestic consumers in the summer of 2014 replacing the Renewable Heat Premium Payment scheme.
- **Renewable Heat Premium Payment (RHPP)** – gives one-off payments to householders and social housing landlords to help them buy renewable heating technologies like solar thermal panels, heat pumps and biomass boilers. From March 2013, the scheme requires applicants to undertake a Green Deal Assessment. Households heated by mains gas are only eligible for solar thermal grants.

The following diagram from DECC summarises these initiatives visually:

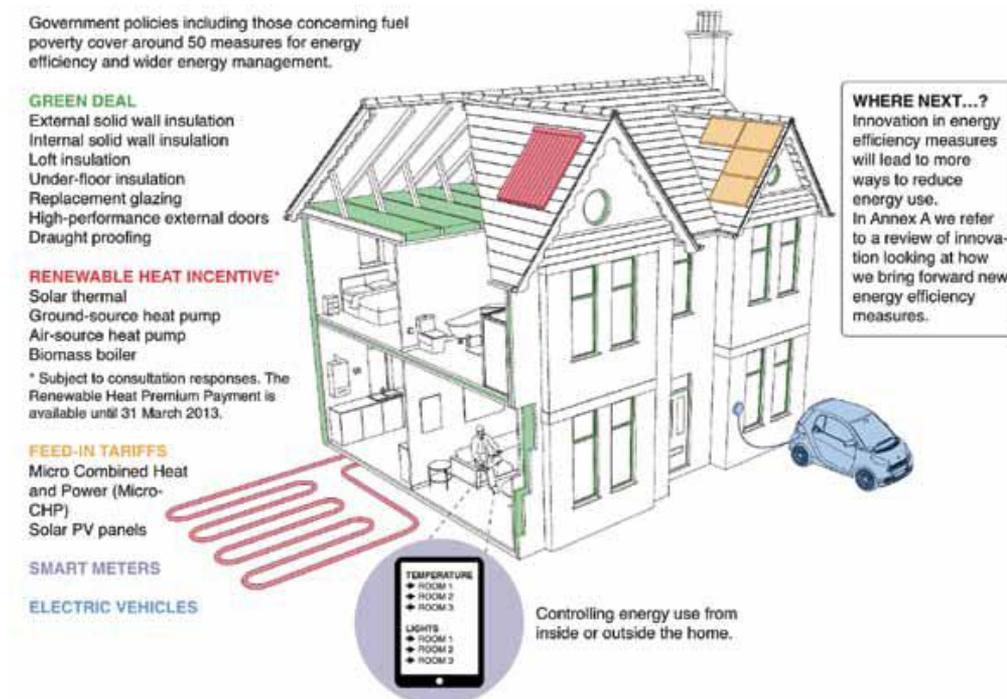


Figure 1. From DECC (2012): ‘19th century house... 21st century energy management’

⁴ <https://www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies>

The Energy Efficiency Strategy outlines the following innovations:

- 1) **RE:FIT** – London’s retrofit programme for public buildings to be rolled out nationally. Aims to ease the installation of energy efficiency measures in public buildings through the use of an energy-service company (ESCO) financing model.
- 2) **Energy Demand Research Centres** - £39million investment to establish five interdisciplinary centres to research consumer and business behaviour change.
- 3) **Behavioural trial** – with John Lewis, to test whether consumers respond to product labels on household appliances that state their lifetime running costs.
- 4) **DECC Community Energy Strategy** (forthcoming). This strategy will inform how DECC works with community groups and local organisations across all aspects of buying, saving and generating energy (DECC 2012: 76). The strategy is due to be published later in 2013.
- 5) **Community Energy Efficiency Outreach Programme** (forthcoming). This is a pilot being carried out by Groundwork UK to test the efficacy of community-based engagement in promoting energy efficiency measures. As well as helping DECC to understand how best to use community networks to deliver energy efficiency measures, it will also help community organisations ‘understand how they can benefit from DECC’s policies to pursue their collective aspirations’ (DECC 2012:77). One of the pilot areas for this programme is in Bristol where Groundwork are comparing two similar areas, one with a local group and one without, to see what difference there is in householder engagement in energy efficiency.

In July 2012 new statutory guidance to English local authorities was issued under the Home Energy Conservation Act 1995, which ‘recognises local authorities’ ability to improve the energy efficiency of all residential accommodation in their areas including, where appropriate, through the Green Deal and ECO’. The guidance ‘encourages LAs to work with local partners including social housing providers and **community organisations** to help drive early demand and implement cost-effective energy efficiency improvements’ (DECC 2012: 28).

Limitations of current policy opportunities

As promising as this host of interventions may sound, the centrality of the Green Deal to efficiency policy is made clear by its mention in every section of the strategy. The strategy acknowledges that raising awareness will be a critical factor, while early analyses suggest that large numbers of potential beneficiaries remain unaware or confused by the proposals. Despite its appeal to individual homeowners, the Green Deal is essentially a financial arrangement with large energy suppliers, leaving little room for community involvement.

Also striking in DECC’s strategy is the emphasis and investment placed on understanding and promoting behaviour change. Whilst behaviour change is clearly of paramount importance for energy efficiency, proposed strategies take a rather narrow, individualistic approach to behaviour. DEFRA’s (2008) *Framework for Environmental Behaviours* adopts a similar perspective, as do recent white papers favouring behavioural economic explanations of choice and decision-making. A policy focus on individual psychologies as opposed to communities and wider civic groups is concerning for activists promoting community energy. Given the forthcoming pilot programme mentioned

above, it seems that a community-level focus for energy efficiency is still some way off the top of the policy agenda.

2.5 What does this all mean for Bristol?

This background section gives an overview of current theories, policy and comparisons from other countries which help to put the Bristol work in context. We have not carried out an exhaustive literature review but thought it necessary to consider the context within which the Bristol energy sector operates and within which our research sits. As we note earlier, current policy tends to favour the behavioural approach exemplified by DEFRA's framework (2008). Our work with Bristol community energy groups has taken a more systems type approach whilst also drawing insights from some strands of social practice theory. The concept of intermediary or broker is little explored in the literature to date although the concept is starting to gain traction as the limitations of purely voluntary groups becomes ever more apparent. It is this idea that we have taken further through this work.

3. The Bristol context for community energy

3.1 Overview of community energy in Bristol

In Bristol, as in other towns and cities, energy efficiency and sustainable energy generation are of concern to policy-makers and households alike. However, in contrast to DECC's rather individualistic market-focussed approach, the approach in Bristol emphasises collective community actions to addressing energy issues. As in some other places, a number of community groups have emerged which address particular concerns within their localities. Some of these groups link directly to the Transition Towns movement and consider energy in the context of climate change and peak oil, some have a wider sustainability remit, whilst others focus exclusively on local energy issues such as fuel poverty. Another category exists purely to develop community-owned renewable energy through co-operative structures.

Three features distinguish the Bristol scene: first, its wide range of groups spread across different areas of the city; second, the overarching Bristol Energy Network (BEN) which connects them and encourages the sharing of knowledge and experience; third, the presence of CSE, a national charity founded and based in Bristol to 'help people and organisations from the public, private and voluntary sectors meet the twin challenges of rising energy costs and climate change'.⁵ As we have already noted, these two organisations played a key role in helping nine Bristol groups secure funds from the Government's Local Energy Assessment Fund (LEAF) early in 2012.

Additionally, and almost uniquely to Bristol, the City Council has secured two pots of grant funding relating to energy. The first is the 'Bristol Homes Energy Upgrade' (BHEU)⁶, a £2m grant from DECC to be spent by the end of March 2013 to subsidise energy efficiency measures in homes across the city and pilot some new Green Deal mechanisms. The second is European investment funding, through ELENA⁷, for the **BRITE** (Bristol Retrofitting – Innovative Technologies for Everyone) project which delivers £2.5m to invest in setting up structures for energy generation and efficiency across the city's public sector buildings and homes⁸. The fund provides for the establishment of a new city-wide approach, setting up systems, including an energy services company (ESCO), to manage the delivery of different aspects, leading to an overall potential investment of £140m. The project runs until 2015, and will address domestic retrofit through the Green Deal, drawing on the learning from BHEU. ELENA funding has been awarded to just four UK projects – two in London and one each in Birmingham and Bristol. Birmingham, with its population of over a million, has also benefitted from DECC funding to pilot Green Deal measures.

Both of these initiatives (BHEU and BRITE) have identified potential for community group involvement and, coupled with the momentum generated by the LEAF projects, create a particular opportunity for impact by local groups.

⁵ CSE web <http://www.cse.org.uk/pages/about-us/who-we-are> accessed 14 Nov 2012

⁶ <http://www.bristol.gov.uk/page/environment/bristol-homes-winter-warming-scheme>

⁷ ELENA: 'European Local ENergy Assistance', run by the European Investment Bank and funded through the European Commission's Intelligent Energy-Europe programme).

⁸ <http://www.bristol.gov.uk/press/business-bristol/bristol-secures-funding-develop-energy-services-company-%E2%80%93-uk-first-local>

3.2 The Bristol energy groups

In the course of this project, we attempted to survey all community groups working on energy in the Bristol area and sent survey requests to a total of 22 Bristol-area groups. We received survey responses from all of the ten local LEAF groups (including one which was a charity working in an unrelated field that had secured funding to explore sustainable heating and educational initiatives) and two non-LEAF groups. This gave us an overview of their structures, aims and activities as well as more detailed responses regarding their LEAF projects and future hopes.

Only one group did not have a constitution or some form of written agreement between the organisation and its members and **nine had adopted one or more forms of legal structure** with three each as Community Interest Company, Registered Charity, and Industrial and Provident Society. Two of the registered charities were also companies limited by guarantee and one of the Industrial and Providents was also a Community Benefit Cooperative.

In relation to activity on energy, although some of the groups in the survey had energy as their sole aim, this was the case for less than half of the respondents, with others focussed on wider sustainability and environmental issues (fig. 2).

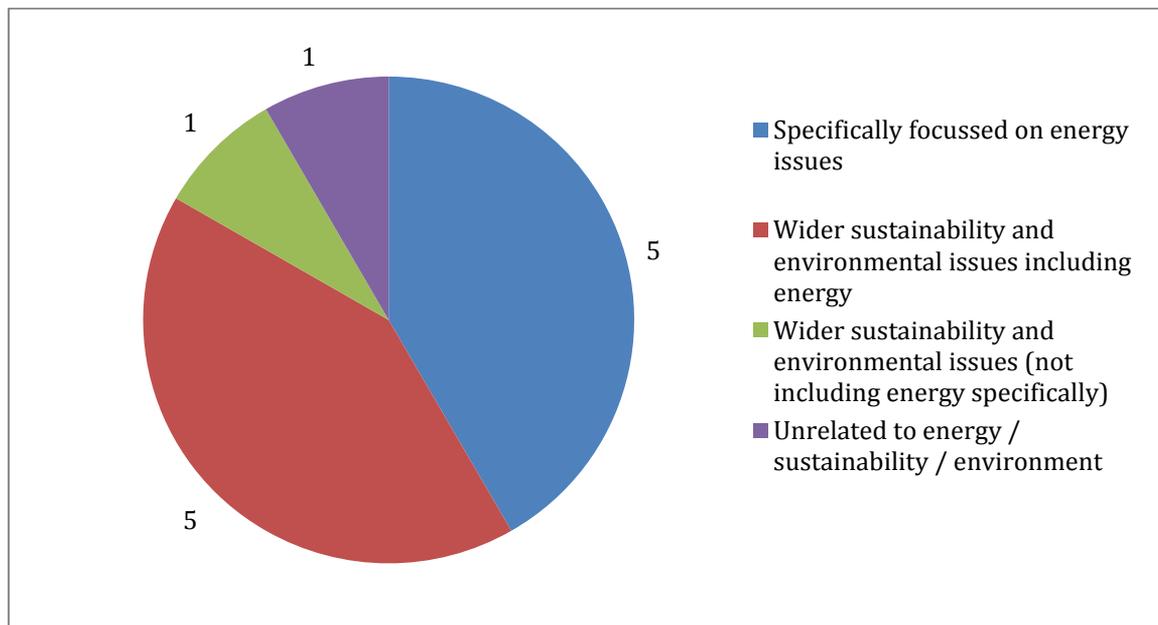


Figure 2. "Would you say your group's main aims are..." – responses by Bristol area groups.

The groups were asked to provide a brief overview of their overall aims so that we could get a better understanding of how they operated and where energy sat within their organisation. Seven of the groups gave **energy or CO2 reduction** as one of their main aims with another two framing it in terms of **climate change or peak oil** – linking to the aims of the Transition movement. Two other groups had broader sustainability aims at their core. Beyond these core aims sat a range of other issues which, at a local community level included addressing fuel poverty (three groups) and employment opportunities / sustainability of the local economy (two groups). Two groups were

aiming to develop financial models which would allow for investment in carbon reduction and renewable energy generation.

At a more strategic level, two groups said one of their aims was to engage in the policy and plan-making process, responding to consultations and working to influence community and neighbourhood development plans.

3.3 Learning from LEAF

The Local Energy Assessment Fund (LEAF) was a Government initiative providing funding to community groups to build capacity for energy efficiency and generation measures within their local areas (EST 2011). The fund was launched in December 2011, with bids for funding submitted in January 2012 and all projects completed by the end of March 2012. We draw here on the results of the survey to which all ten Bristol and two non-Bristol LEAF groups responded, supplemented by an analysis of the LEAF reports returned to DECC at the end of the projects.

The **short timescale** both for bidding and delivering the projects was a very real problem for community groups operating solely with volunteers. CSE offered their local expertise to community groups to help put the bids together, providing standard work packages that the groups could build into their bids. Ten out of the twelve LEAF groups responding to the survey made use of support offered by CSE in compiling their bids with **eight stating that the support was either very useful or essential** for their success.

Feedback in the final reports to DECC shows other issues relating to management of the projects and of the whole LEAF process. In particular, the issue of tight time-scales arises repeatedly. Groups had little time to plan activities as effectively as they would have liked, with insufficient lead-in time for public events and less time for direct public engagement through surveys and interviews and for consultation on activities. ***'LEAF was a great opportunity that we could have made so much more of if we had had more time.'*** Some projects were scaled back due to lack of time to develop ideas and obtain necessary quotes for work. The 'hundreds of hours of unpaid labour' put in by core volunteers working on the projects caused stress and exhaustion with several groups saying that paid project management would be necessary in future. At subsequent BEN meetings the LEAF funding was referred to as a 'cruel experiment' by DECC which fundamentally misunderstood how voluntary groups operate and how to make them work better with limited volunteer resources operating around jobs and families.

A key issue for community groups undertaking these sorts of projects is how to access necessary expertise. As noted above, CSE offered support with bidding and standard work packages which some groups found invaluable. Seven of the groups surveyed used one or more of the CSE work packages, with the 'analysis of community demand and energy saving potential' being included in all seven projects. Of these seven groups, six said that they did deliver what they were hoping for, observing that 'without CSE work packages, **we would have struggled to put together a valid bid**' and that 'their **experience and expertise was invaluable**'. The LEAF reports also reflect this view with six of them saying that CSE was 'essential', 'critical', 'vital' or 'very useful'.

In addition to support provided by CSE, seven of the twelve LEAF projects surveyed used other contractors to help deliver their projects. Beyond the specifics of energy assessments and

renewables potential, three groups used external contractors to help with the **running of the project** and another two used **professional** specialists to draft constitutional, planning consent and other legal documents. Some groups expressed regret that they had not built in these elements, as the whole process of delivering the projects with volunteers had been 'exhausting'.

Groups were also asked what they intended to do with outputs from the CSE work packages as well as the learning from the project as a whole. Where groups had used the CSE work packages, they generally thought that the results would be useful mainly in the long term (i.e. over six months from the end of the project). They valued the wealth of data and thought that it would 'form the **backbone of further studies and assessments**' and 'be useful for determining **future direction and projects**'. The data would also 'be useful in **targeting particular areas for energy efficiency** measures' and '**helping the public understand** what can be done' to 'reduce energy consumption and lower CO2 emissions'. One group, however, said that 'a lot of data was produced around housing stock and solar PV potential which **we have difficulty interpreting** into useful projects'.

More generally, groups were asked what they had done or were intending to do with the data resulting from their projects. Unsurprisingly, responses centred around determining priorities for future activity (five groups), establishing a database / baseline (three groups) and raising awareness (two groups), with some groups saying that they haven't had the resources or energy to consider what to do next. One group said that 'the LEAF trial clearly showed that some of **the issues affecting people in lower income groups regarding energy use and saving are different to people in higher income groups** and that although acknowledged in principle is not reflected well in the Green Deal set up as it stands'. Another group stated that they 'have been able to **link with local housing associations and other community bodies** in identifying those in fuel poverty'.

LEAF did help the groups to establish stronger local network – of volunteers, businesses and connections to other (non-energy) groups which they should be able to draw on in future activity.

3.4 Connectedness and the geography of Bristol Energy groups

Geography

Although there are quite a number of energy and energy-related groups in Bristol they are concentrated in particular areas of the city, with other parts of the city under-represented. This is particularly the case in the poorer outer suburbs and to the East of the city where there are no local groups connected to BEN. The BEN website (<http://bristolenergynetwork.org/>) has a current distribution map which is reproduced here for reference (fig.3). A future challenge for BEN (and the other local groups) is how to reach more widely across the city so that all areas have the opportunity to participate in local energy activities, particularly energy efficiency and measures to help combat fuel poverty.

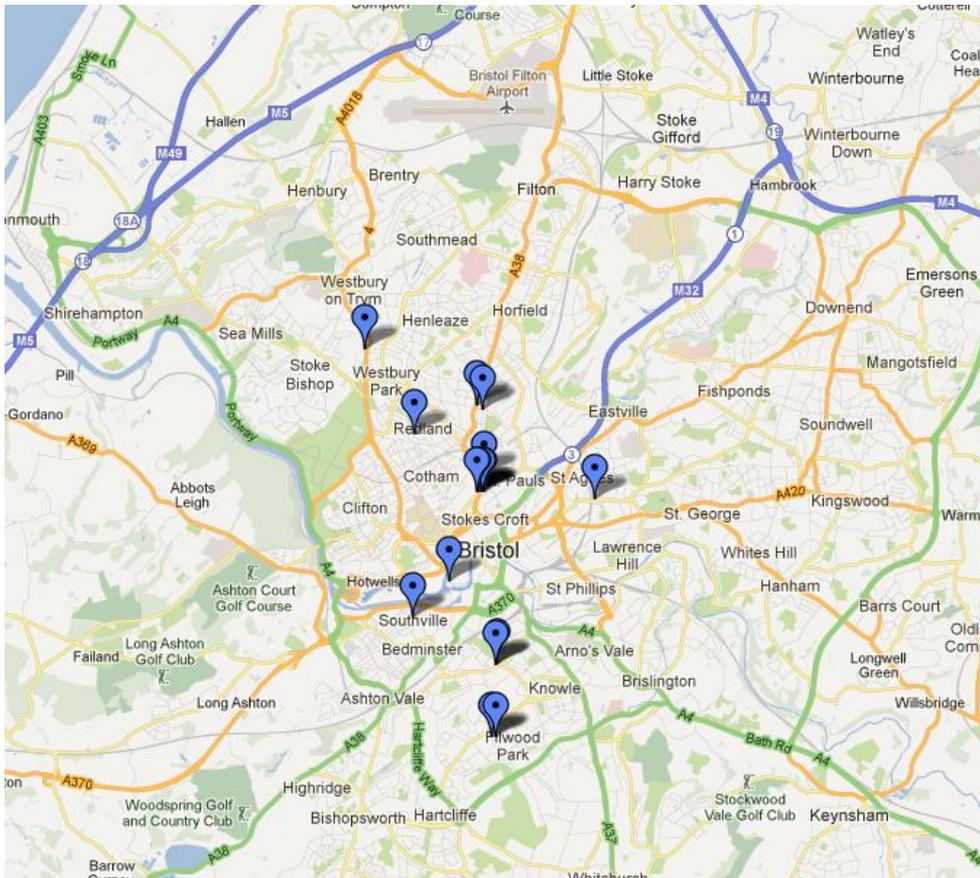


Figure 3. Distribution of energy groups in Bristol

Linking local energy

Another pertinent issue is the interconnectedness of the sector and the strength of its connections with relevant external organisations. In a mapping exercise carried out at a BEN meeting in January 2013, participants in small groups attempted to map the connections. Although each group had a slightly different take on the existence and strength of the links, there were clearly some gaps which appeared repeatedly. Figure 4 summarises the work carried out and, although it is impossible to show all the links, it does show the complexity of the sector.

Notable gaps included how well local energy groups perceived their connections to households, other (local) non-energy groups and the wider public – a significant omission if widespread understanding and change is to be achieved. There is however a potential tension between local groups interested in heritage and amenity and the aspirations of groups seeking greater energy efficiency and measures to address climate change. Participants also suggested that better connections to local schools and the (social) housing sector would help them to reach a wider public. The value of housing associations is particularly where they can represent less affluent people and connect with measures to address fuel poverty. Private landlords too have a role here where many people struggle financially in the private rented sector.

The other category of low connectedness was in relation to business. Whilst many groups had some connection to relevant local businesses, opportunities were being missed in not connecting

sufficiently to other small businesses locally or to larger businesses with the potential to provide funding.

The significance of the direct and contractual relationships between individual households and their energy suppliers should not be underestimated, since it gives the energy companies a substantial advantage in communicating their messages about energy to a wide audience.

Local groups generally have low levels of connectivity to the large national players including the Big 6 energy companies and DECC. It was suggested that the smaller energy companies such as Good Energy (which is also local) are a better fit for local energy groups trying to improve local sustainability.

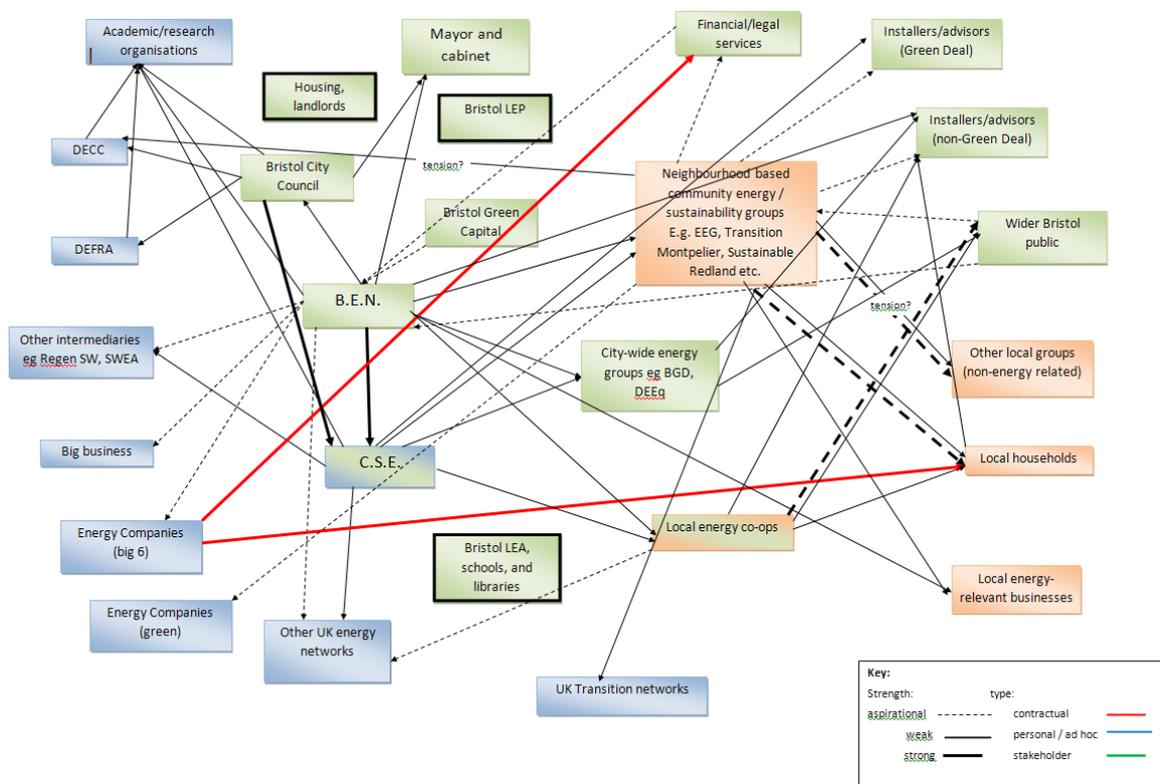


Figure 4. Mapping the links in Bristol community energy

4 Lessons from other sectors

In this section, we draw back from the detail of the Bristol situation and community energy and consider the experiences of the water and co-operative housing sectors where Morgan and McDermont have researched previously and in which there are some instructional parallels which are worth considering in more detail.

4.1 The co-operative housing analogy

(full report published separately)

Here, we examine the relationship between community groups and intermediaries like BEN by exploring an analogy with housing co-operatives and the service agencies which support them. We can see a number of interesting parallels emerging between the organisational structures involved in both cases.

Housing Co-ops: What are they and why are they relevant?

There are two broad categories of housing co-ops: primary and secondary. Primary co-ops are organisations where tenant members collectively own and/or manage the housing in which they live. They operate on a not-for-profit basis, in accordance with various basic principles including open and voluntary membership, democratic control and mutual co-operation. Secondary co-ops exist to promote new primaries and to provide them with a range of development, training and management services. Most secondaries are at least partially administered by the primaries they service.

With a little imagination, we can conceptualise Bristol's community energy networks using a similar organisational framework. Each community group may be thought of as a primary co-op in its own right: rather than owning housing, each group collectively administers its members' interventions and aspirations to influence energy practices.⁹ At the other end of the spectrum, CSE may be thought of as a large secondary co-op, providing advice, mentoring, enterprise development and technical training to community groups and other clients. BEN, it could be argued, falls somewhere in between. As an umbrella organisation for all the initiatives which comprise it, BEN may be thought of as one large primary co-op: the culmination of Bristol's sustainable energy enterprise. Alternatively, as a collective organisation equal to more than the sum of its parts, BEN may be considered a burgeoning service-providing secondary.

⁹ Bristol Energy and Power Co-operatives more closely resemble conventional housing co-ops, with their members collectively owning physical assets (solar installations). Beyond these two examples, the idea that each community group resembles a housing co-op relies on a more abstract understanding of their collective assets, or, their *social capital*. In a sense, what they *own* are the collective aspirations of that geographical area to change energy practices. The collected beliefs, attitudes and values of the community are important in developing shared aspirations for implementing energy behaviour change.

The co-op movement thrived at those times when government saw co-operatives as having distinct benefits over other types of housing, and as offering a real alternative to the bureaucracies of local authority control. Community energy groups and their representative organisations face the same challenge: they need to be able to demonstrate why ‘community’ is an important channel through which to implement sustainable energy policy (if indeed that is what they want to do – some groups actively want to pursue goals that seek to change Government policy). They need to persuade policy-makers of the *long-term viability* of community-level implementation of energy initiatives.

Types of support offered by secondary co-op, or BEN?

While the more technical services provided by secondary co-ops relate specifically to housing, many of their core services would benefit most new organisations in any sector. These services fall into three broad categories:

Promotional Support

Providing background information and promotional material to prospective participants, local/national authorities and funding bodies was essential for the growth of the co-op movement. This is similar to the Australian experience of support organisations in community renewables whilst experiences with the LEAF projects have shown how effective local groups can be in engaging with their communities through appropriately targeted material.

Development and Legal Support

Supporting voluntary organisations through legal processes has been a crucial aspect of secondary co-ops’ work. CSE and BEN have played a similar role in assisting nine groups to secure LEAF grants. For secondary co-ops, this ‘bridging’ role was paid for with funds allocated by the Housing Corporation. For BEN, similar funding is less readily available. The challenge for BEN and its members is to demonstrate to funders the particular benefits, through resource pooling, that collective community organisations can bring to the effective implementation of energy policy as one of their possible aims, although the diversity of CE organisations might make this more difficult to achieve than in co-operative housing.

Financial and Management Support

Financial services are the most widely used of all services offered by existing secondary co-ops. These types of services will become important if community groups begin to command their own revenue streams. As an intermediary agent, for example, BEN may attempt to negotiate specific contracts between developers and whole streets of homeowners interested in retrofitting. Again, this would require active demonstration that policy can be delivered more effectively through collective community structures than via disconnected homeowners.

Transferable Lessons: Looking forward

Assets and Resourcing

Like secondary co-ops, Bristol’s community energy groups lack the physical asset base which primary co-ops have in their housing, although their knowledge and contact with the local

community is arguably an important (although intangible) asset. Lack of assets has been the key source of instability for secondary co-ops; essentially, their fate has been dependent on erratic waves of government funding. Similarly, BEN's development and future role may be limited without some kind of asset base, secure source of income or paid staff. At a community level, it is likely that grant revenues will continue to play a major role in determining what kinds of projects groups have the capacity to deliver. Referral fees might also prove to be a source of funding.

Funders will require regular demonstration that grassroots initiatives are a more effective means through which to implement policy than traditional top-down approaches. Arguments in defence of housing co-ops have often focused on non-quantifiable social and cultural benefits which collective organisations bring to local communities. BEN and the community groups are well-positioned to deliver these types of benefits; the challenge will be how to demonstrate this. The LEAF projects show initial progress in this area through their expanding networks of individuals, relevant professionals and other local community groups available for future collaboration.

Structure and Communication

Most secondary housing co-ops had to adapt constantly to survive competition due to major changes in funding arrangements. As the details of the Green Deal or other policies become clearer, BEN and its member groups will need to adopt structures relevant to specific policy directives, as well as develop ways to demonstrate their effectiveness to Green Deal or other regulators. Like small housing co-ops, many of BEN's groups have a limited ability to demonstrate their effectiveness and coordination to potential funders. An important function of secondary co-ops has been to act as spokesperson between smaller groups and the regulatory structures governing their finance.

Locality and National Networking

Secondary co-ops are dependent for custom on a geographically-located client pool; they are effectively tied to the physical houses of the groups they service. In contrast, intermediaries like BEN do not need to restrict their services to a particular locality; CSE provides a good example. BEN could form part of a national network of similar services: a National Federation of Energy Networks, for example, to foster the sharing of experiences with groups in different regions, and to promote community energy participation to a yet wider audience.

This analogy highlights the key issue of assets and resourcing. Housing co-operatives flourished when there was proper support from the secondary co-ops. Community energy groups are mostly volunteer-based and thus limited in their capacity for action so resourcing will continue to be an issue in any future activity; some form of funding, at either the group level or to support BEN itself, will be essential.

4.2 Water service provision

In prior research, Bronwen Morgan focused on successful engagement between social activists and regulatory technocrats in the domain of water service provision. This research has transferable lessons for making regulatory design more responsive to the energies of community-based citizen

activism and for fostering the capacity of rights-based activism to leave a lasting institutional legacy (Morgan 2008; Morgan 2011). A key lesson is that when there is a mix of community-based organisations and small/medium sized business involvement in a sector, it is helpful to identify institutional structures (or 'business models') that clarify two important trade-offs:

- (i) the trade-off between building up internal capacity within community organisations on the one hand and buying in technical expertise from the outside on the other hand.
- (ii) the trade-off between improving social capital and local benefits on the one hand and maximising profit on the other hand.

Two main models emerge in looking at these trade-offs: property-rights approaches (which tend to favour profit-maximisation, economic viability and the deployment of technical expertise as a professional commercial service) and common-pool approaches (which tend to prioritise the building of social capital, internally vibrant community organisations and the deployment of technical expertise as a shared community resource).

We can see the relevance of these models and trade-offs for community energy when we reflect on the LEAF projects. Most groups had to buy in expertise but also observed that they do not have the skills internally for future projects. Given more time and the availability of suitable training, a better response might have been to train up local group members or other members of the community to build local capacity for future initiatives. There is a tension here however, in that the smooth professional interface often desired by government and private sector partners when dealing with community groups can directly undermine the energy and commitment that sustains a community group. The lesson here is to build relationships with a 'champion', particularly in local government, who values and appreciates the diversity and unevenness of institutional culture in community groups.

Local authorities also have to consider these trade-offs, particularly the second one in relation not to maximising profit but in terms of delivering value for money to tax-payers as a trade-off to the less quantifiable social capital and local benefits of involving community groups in policy implementation. One of the critical avenues for ensuring that this trade-off is not made at the cost of these more elusive benefits for community groups is the model of evaluation used. The lesson from Walker et al's (2007) research mentioned earlier in this report regarding the importance of a holistic evaluation methodology that is sensitive to the subtle and accumulative cultural impacts that a multiplicity of small projects can help realise, is equally applicable to both energy and water.

5 The opportunities and challenges for community groups and broker / intermediary organisations

We now look at how the policy initiatives outlined previously can be translated into action on the ground and what role different actors have in achieving this – where the opportunities lie and what challenges arise. In addressing this, we consider how community groups and brokers effectively ‘look two ways’: on the one hand, they exist to provide support and promote action within the communities they serve whilst, on the other, there is a need to understand the complexities and opportunities offered by the raft of policy initiatives and regulations governing them so that they can take effective action locally. Universities too can be considered in the broker role, as ‘mediators’ (Osborne 2004) that help in the formation of new ideas and approaches, translate policy into ideas on the ground, and use their knowledge to support community action and to evaluate the effectiveness of different policies and activities.

There are a number of sources of practical information for community groups. CSE, in particular, have produced their extensive ‘[PlanLoCal](#)’ guidance¹⁰ which contains much of relevance for community groups working on energy projects, from information on the Green Deal to developing local installer networks and understanding behaviour change. It is not our intention therefore to reproduce or duplicate this guidance here. Instead we look in more detail at how community groups (and intermediaries) can engage in policy areas, explore the mechanisms for interaction and the specific roles they might take on.

CE is a diverse sector encompassing a wide range of organisations and initiatives so, although we make suggestions here for how local CE groups might want to interact with policy, we acknowledge that some might want to pursue different objectives entirely and actively seek to change policy to better suit local needs. Some groups are set up in the absence of appropriate government or business action.

5.1 ‘Managing up’ – local groups and intermediaries looking at local and national government and business

We consider here the possible roles that local community groups and intermediary organisations could have in helping to deliver different policy initiatives at the local level; what the benefits and challenges might be for the groups and for policy managers; and what opportunities exist to help influence policy in the way that we have seen with other sectors (such as housing) earlier.

Community groups know their communities, the housing stock, and local issues in a way that even local government would find hard to replicate. They have the potential, therefore, to provide knowledge and acceptability as a trusted intermediary between the local authority and individual householders. The LEAF projects in particular facilitated this by providing funds for assessing the local housing stock and for community engagement in energy efficiency and renewable energy.

¹⁰ Available at <http://www.planlocal.org.uk/>

Some groups now have substantial data about their local areas and good networks of local businesses, other local (non-energy) groups and individuals with whom to work. Some possible ways of developing and utilising these local relationships are detailed below:

- Using the community groups' networks for referral (for a fee) into local and national government schemes, such as the Green Deal where Providers might pay the fee.
- Community groups could be supported to host events promoting the Green Deal or other locally appropriate energy efficiency activities – targeting the local community effectively using their local knowledge.
- LEAF groups' data regarding their communities and retrofit take-up potential could help target activities by local authorities, businesses and energy providers through the Green Deal, ECO and local initiatives.
- Some groups are also working on determining priority areas for action within their communities based on the LEAF projects which could feed into a wider regional picture and help kick-start any activity relating to new policies.
- Action on fuel poverty – local groups have a good understanding of the issues and opportunities as well as barriers to action in their local areas (see below).

The potential advantages of working with the local groups for a local authority (or large business) are:

- Greater community buy-in and acceptance;
- Community groups can provide a 'trusted friend' to deliver information in a way that is appropriate to their communities;
- Access to data and assessment of priorities within neighbourhoods which has already been carried out by the local groups;

Advantages for the local groups:

- Potential source of income;
- Local communities can see action happening locally with the input of the group adding legitimacy to its existence and encourage further support from the community.

However, there are also some disadvantages that need to be taken into consideration and addressed if approaches using community groups are to be effective across the city:

- Current coverage by the groups is often patchy and data differs between areas, although learning from the initial areas could be applied more widely;
- More difficult to work with a multiplicity of different groups with differing priorities and volunteer availability;

- The authority might be seen to be favouring those areas that have on-going community activity; these may not be the areas most in need of attention, e.g. in relation to fuel poverty.

In the Bristol context, BEN could act as a broker or central access portal to the various groups and (their) data sources and make it easier for the city council and other large organisations to work with different energy groups in Bristol – providing a single point of contact and clarity for both the groups and the council.

BEN and CSE also fill a different role here in engaging with policy makers and representing the sector at a higher level. The weight that they carry through working with the local groups and / or being made up of an amalgamation of them (in BEN's case) means that they are well positioned to feed back the issues and concerns arising on the ground as local groups respond to new local and national policy initiatives.

The Green Deal

Although the section above also applies to the Green Deal, there are some specific possible roles for community groups which are detailed in the box below. A separate document¹¹ provides more detail and there is detailed PlanLoCal guidance specifically looking at the Green Deal¹².

Potential roles for community groups in the Green Deal

Green Deal Promotion

- Provide impartial information and advice
- Engaging people and creating demand for energy efficiency
- Signing people up to specific GD schemes

Green Deal Assessment

- Carry out home energy assessments
- Act as a Green Deal Advice Organisation (GDAO)
- Provide training for Green Deal Assessors

Green Deal Delivery

- Act as a Green Deal Provider
- Act as a Green Deal Partner
- Act as a Subcontractor

Under the heading of Green Deal delivery, the main elements which can be offered through the three roles above are:

- *Source and provide finance*
- *Set up and manage schemes*
- *Marketing and promotion*
- *Green Deal Assessments*
- *Installation*

¹¹ More detail available in the project leaflet 'Potential roles for community groups in the Green Deal' at <http://bristolenergynetwork.org/mm/outputs/view/14>

¹² Available on the CSE PlanLoCal website at <http://www.planlocal.org.uk/pages/energy-efficiency-and-the-green-deal/energy-efficiency-improvements>

A workshop at the September 2012 Energy Forum¹³ discussed these possible roles and issues arising from community level implementation. It was agreed that the impartiality and local knowledge of community groups would be an advantage here; but the lack of local examples, long payback and disruption for little apparent benefit were seen as key barriers to making it work.

5.2 'Managing down' – intermediaries working with local groups, and the groups working with communities and householders

Community Groups

The community energy groups' core role is to provide support and promote action within the communities that they serve, although the approaches and types of 'community' vary considerably across the sector. In order to do this, they need to know which Government initiatives might help them to promote energy efficiency and the use of renewable energy and be able to translate this into relevance locally. Each community and therefore each group is different, reflecting local people and cultures as well as what is relevant to their local building types.

Feedback from the LEAF projects and our survey shows where groups thought they could be especially effective and also identifies local issues (see the following section). Through the projects, groups have been able to engage far greater numbers of residents, one group stating that it '**has shown that it can deliver for local residents** and has generated enough interest to engage new volunteers and start planning future projects' and another that they had generated '**enthusiasm for learning and change in relation to energy use in the home**'. The improved '**understanding of the housing stock condition and barriers people face**' enables groups to better organise local activities.

Success factors identified within the LEAF projects that can be taken forwards into new projects include 'knowing our neighbourhood and the people who live here', 'good links with local organisations and groups' and good public engagement approaches that work locally.

Intermediary organisations

The 'broker' or intermediary organisations such as BEN and CSE also exist to provide support and promote action within the local communities but they are one step removed from direct interaction with community members (householders and local businesses). Rather, they help support action across the city-wide community via the individual local energy groups. Drawing on the analogy with housing is helpful here to see how we can compare the intermediary groups with secondary housing co-ops regarding the roles they fulfil. There are three main areas where it is especially beneficial to have this intermediary support:

- Promotional support – provision of information on the opportunities presented by new policy initiatives, both to the groups and individuals.
- Developmental and legal support – as with the LEAF projects, an intermediary organisation can provide a 'bridge' between the formal demands of policy and the needs of community-

¹³ <http://bristolenergynetwork.org/content/notes-workshop-b-roles-community-groups-delivering-green-deal>

based groups, helping to establish new projects and providing a common platform for sharing expertise and communicating back to funders and government. It can help community groups adopt the appropriate legal structure if they want to scale up activities or develop into new areas.

- Financial and management support – provision of supporting services which the smaller individual groups are unable to do themselves or for which there is insufficient volume or funding to arrange individually.

Feedback from the LEAF projects identified the value of BEN in linking and helping to share learning across the groups thus ‘supporting each other’ and stopping them ‘from acting in isolation’.

A further important intermediary role in the Bristol community energy context would be to ensure more resources are directed to deprived neighbourhoods, and to help establish community energy groups in these neighbourhoods if desired. A current disadvantage (noted above) is that there is patchy coverage of community energy groups and that the concentration is more towards the ‘pro-active middle-class’ areas where action, particularly on fuel poverty, is less urgent and more self-sustaining. We note this issue in section 2.2 and refer to literature by Park (2012) who recommends that issues of equity and social justice should lie at the heart of any community energy policy.

Academic institutions perform a different sort of broker role in acting as ‘mediators’ which Osborne describes as the ‘intellectual worker as enabler, fixer, catalysts and broker of ideas’ (2004: 440), in other words, the one who ‘gets things moving’ in the sense of developing ideas and helping to make things happen. In the context here of community energy, the academic can help to catalyse impenetrable policy into real and necessary action, supporting the other intermediary organisations in their quest for the most effective ways to support and engage communities.

It is worth reiterating here the point made earlier from the UK-wide survey of community energy on the value of ‘intermediary networks, to ensure community energy projects have the resources they need to progress and achieve their objectives’ (Seyfang *et al.* 2012: 22).

5.3 Challenges for community groups and intermediaries

The survey carried out by this project and the experiences with the LEAF projects have highlighted a gap between the aspirations of community groups to achieve real change in energy efficiency (and renewable generation) within their communities and their ability to actually deliver over a sustained period of time. Our summary below also draws on the learning and recommendations of the report produced by CSE in 2011 on ‘Supporting Bristol’s Community Energy Initiatives’ (CSE 2011).

- Resources

Resources refers both to funding to develop new projects and to the human resource to initiate ideas and see projects through to completion; and to maintain consistency in how they work with the wider local community and other groups. This issue arises repeatedly in different ways throughout our survey and in the LEAF feedback reports. In some cases the LEAF grants, although welcome injections of funding, had exhausted the volunteers running them (the short-timescale

clearly didn't help) and new injections of energy were needed. One group in the survey said that the 'main problem is **lack of volunteer time** to do the detailed research; planning and implementation', resulting in 'activities [which] are a bit hand to mouth/relatively easy to do'. Another said that 'a volunteer model is not viable because most of the **volunteers simply don't have the time needed to run large projects**' and that 'it is difficult to keep up with the daily changes'. Three groups in the survey said simply that 'money' was necessary 'to make a real difference in the area'. This applies equally to volunteer-run intermediaries such as BEN where, arguably, consistency and longevity are even more critical.

- Access to information and expertise

Another main issue coming out of the survey was access to information and expertise. Groups said that it would be valuable to have 'access to clear information about the **implications of various policies and initiatives for groups** such as ours' or 'an **expert mentor** that explains things simply and highlights opportunities'. It was acknowledged that CSE performs some of this role, with BEN providing a Bristol focus.

- Co-ordination of activities

The factor that the groups identified as having the second greatest potential to make a difference to their ability to progress with local energy ambitions (after funding) was '**co-ordination of activities**'. This could be translated as working together better and the sharing of experiences, information and expertise, something that BEN or another intermediary organisation could facilitate. CSE's 2011 report also noted 'improving networking and information sharing' as a key recommendation. This survey, however, implies a willingness to go further than networking, in working with other groups to maximise the benefits from limited resources and potentially to scale-up activities.

- General levels of understanding in the wider community

The LEAF projects raised other issues in relation to the general levels of understanding. For example, one group said that 'people are interested in saving energy and reducing fuel bills, but have little awareness of basic information about their homes and finances'. People might understand cavity wall and loft insulation, for example, but not 'the effects of holes in walls and gaps under doors and issues of condensation'. CSE's 2011 report highlighted the lack of 'public awareness, acceptance and involvement' as the biggest problem in their 2011 survey. This highlights the need for 'much more **basic education and awareness** campaigns' on energy efficiency before engaging the wider community with the complexities of current policy initiatives.

- Particular barriers to action

The LEAF projects also enabled groups to better identify the barriers to action that exist within their communities. For example, one group said that there was a 'clear linguistic barrier for Black, Asian and Minority Ethnic (BAME) residents' whilst another said that their 'deprived neighbourhoods do not have the financial capacity to pay for even simple energy saving measures'. This leads us to consider social justice issues and the promotion of a fair and equitable distribution of resources so that those in greatest need receive proportionately more support. One role for any intermediary should be a commitment to ensure more resources are directed to deprived neighbourhoods.

6 Recommendations for further research and action

This project has drawn on previous work and focussed on the Bristol context for community energy. We now have some understanding of how the Bristol groups work and the barriers they face, together with ways of helping them to move forwards successfully - linking with the intermediary organisations, specifically BEN and CSE. The Bristol Community Strategy for Energy (BCSfE), currently under development by the groups and BEN with support from CSE, Bristol City Council and the University of Bristol, will help to cement some of these ideas as will furthering links with other organisations around the country and learning from their experiences.

Any further research will benefit from the learning of the seven 'Energy and Communities' projects (ESRC 2012) funded through the Energy Research Programme from the Economic and Social Research Council (ESRC) and the Engineering and Physical Sciences Research Council (EPSRC) as they draw to a close and report their findings during 2013/14.

6.1 Academic research

There are some particular areas that have arisen through this project that are worth mentioning here as initial pointers for further investigation. Universities, in their role as knowledge brokers, also have a more general role to play in helping communities make local sense of central policy.

Monitoring: the impact of community and council initiatives

Funders frequently look for evidence on the efficacy of funding initiatives; time and energy often run out at the delivery stage with little long-term monitoring of impacts. Securing funding for an on-going monitoring programme of community energy initiatives would help to ensure that the best projects are identified and salient lessons are learnt.

Action on Fuel Poverty and barriers to take up of policy measures by low income households

The issue of equity and fuel poverty has been an undercurrent in this report and there are clearly issues that need addressing if the fuel-poor are to be able to engage with policy to improve energy efficiency. Research into the barriers to engagement, working with the local groups, is needed to start to unpick the inequity and suggest measures to address it.

Bristol ESCO

Energy Services Companies are a relatively new concept in the UK but are more widespread around the world, especially in the US and Germany. Through the Bristol ELENA project the idea of developing an ESCO at arms-length from the City Council has been mooted. BEN, through the BCSfE, is also considering what a community ESCO might look like. Research into the different structures could benefit both proposals.

Local Installer networks and database

Attempts have been made by various groups to set up local databases of tradespeople but they tend to become snapshots in time with little on-going assessment of their currency or feedback on performance. Through Green Deal accreditation, there will be a database of accredited assessors

and installers but it is unclear what this might mean in practice and whether / how it can include feedback as well as giving really local businesses work in their immediate area.

6.2 BEN and the local groups

Clarify intermediary roles – benefits and funding

There are a number of roles that BEN could take in their intermediary or broker position and the lessons from co-operative housing give us some pointers to what has been valuable in the past. The community groups need to work out what they want from BEN that would help them to work more effectively in delivering projects on the ground and to reduce duplication of effort through pooling of resources in BEN.

Securing core funding

A key recommendation from this work is that BEN secures some form of funding which would help it to become self-sustaining and provide a core resource to help co-ordinate action by the individual groups. An initial bid for funding to support further investigation into the best long term way of securing funds might be the necessary approach.

Working with BCC, linking to other initiatives and strategies to deliver on multiple objectives

BEN, in particular, has a key role to play in connecting at a city-level with the city council to ensure that council initiatives consider what role community groups can play in helping to deliver policy and to ensure that community groups get some benefit from their interaction with the council. In addition, other government and local policy which is not energy-specific may also impact on energy and an understanding of how local energy groups can get involved and how the council or government would benefit from their involvement is an important future area. If BEN and the local groups can demonstrate clearly the benefits of bottom-up activity in engaging with top-down policy this will provide further impetus for the Council and Government to engage with them.

Bristol Community Strategy for Energy – developing targets and an action plan

The Strategy will form a valuable resource sitting at the centre of community action for energy in the future. It will help individual groups focus their efforts and provide a template for the council and business to work with the groups in shaping a city where energy matters and everyone is engaged in reducing energy use and developing sustainable energy sources for the future. The strategy will deliver an overarching vision with core themes and goals within which different local solutions can be shaped to suit the needs of particular communities.

Working with business and other local groups

As we noted in section 3.4, there are gaps in the coverage of community energy across Bristol and in the connections to the wider public and local businesses. If the (energy efficiency / renewable energy) message is to be widely heard and understood, it is vital that consideration is given to how other types of community groups, businesses and geographical areas can connect to BEN and the existing community energy groups.

7 Conclusions

There is a thriving local energy scene in Bristol but it would benefit from more consistent support and resourcing to enable it to connect more effectively across the city and to help new groups develop and reach other areas. BEN is well supported with a good level of attendance and participation at each meeting but limited in what it can do by its own volunteer resourcing. There is a wide range of groups across the city: geographically, in terms of priorities and organisation and in how they set out to achieve sustainable changes in energy use. This makes it harder for BEN or others to develop common approaches, but it is telling that 'better co-ordination of activities' was the second priority (after funding) in our survey to help them achieve their ambitions.

There is scope for developing better connections with business and other local organisations to increase support and raise awareness of local energy issues. The groups that participated in the LEAF projects have significant local data and well-developed local networks to enable them to develop new initiatives, although resourcing remains an issue.

The Government, in contrast to the local approach in Bristol, still seems to be taking a largely individualistic approach, particularly to influencing behaviours and take-up of energy efficiency measures. The Green Deal, central to the Government's energy efficiency policy, is largely relying on the market and the big energy suppliers with little room for potentially productive community involvement to encourage understanding and engagement. The Bristol groups would welcome the opportunity to become engaged with the programme but are understandably reluctant to be seen to be working closely with the large energy suppliers whom many people regard with some suspicion.

The Bristol Community Strategy for Energy has the potential to clarify ambition and enable BEN to be clearer about how the network operates and what benefits accrue from the co-ordinating role. This will strengthen the case for future resourcing as well as bolster links already established with the City Council.

Thank you!

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8 Bibliography and references

Bulkeley, H. & Fuller, S. (2012) *Low Carbon Communities and Social Justice*. Joseph Rowntree Foundation, Ref: 2741. Available at: <http://www.jrf.org.uk/sites/files/jrf/low-carbon-communities-summary.pdf> [Accessed 21 January 2013].

Catney, P., Dobson, A., Hall, S., Hards, S., MacGregor, S., Robinson, Z., Ormerod, M. & Ross, S. (2012) 'Big Society, little justice? Community energy and the politics of localism?' Available at: <http://www.esci.keele.ac.uk/recckn/downloads/Big%20society%20little%20justice.pdf> [Accessed 20 January 2013].

Centre for Sustainable Energy (2005) *Community Benefits from Wind Power. A Study of UK practice and comparison with leading European countries*. DTi London.

Centre for Sustainable Energy (2011) *Supporting Bristol's Community Energy Initiatives: projects and priorities*. CSE, Bristol.

Co-operatives UK (2012) *Manifesto for a community energy revolution. Part of the work of the Community Energy Coalition*. The Co-operative Group; and Co-operatives UK, Manchester.

Department for Environment, Food and Rural Affairs (DEFRA) (2006) *Synthesis of Climate Change Policy Evaluations*. Available at: <http://www.defra.gov.uk/environment/climatechange/uk/ukccp/pdf/synthesiscppolicy-evaluations.pdf> [Accessed 10 February 2013].

Department for Environment, Food and Rural Affairs (DEFRA) (2008) *A Framework for Environmental Behaviours*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69277/pb13574-behaviours-report-080110.pdf [Accessed 26 January 2013].

Department of Energy and Climate Change (DECC) (2012) *The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65602/6927-energy-efficiency-strategy--the-energy-efficiency.pdf [Accessed 11 February 2013].

Department of Energy and Climate Change (DECC) (2009) *Low Carbon Communities Challenge: 2010–2012'*. DECC, London.

Economic and Social Research Council (ESRC) (2012) 'Using communities to find the answers to energy demand problems'. Available at: http://www.esrc.ac.uk/news-and-events/press-releases/3400/Using_communities_to_find_the_answers_to_energy_demand_problems.aspx. [Accessed 21 January 2013].

Elzen, B., Geels, F.W. & Green, K. (2004). *System Innovation and the Transition to Sustainability*. Edward Elgar, Cheltenham.

Energy Saving Trust (2011) *Local Energy Assessment Fund*. Available at: <http://www.greencommunitiescc.org.uk/DECCDefault.aspx> [Accessed: 20 January 2013].

Grin, J., Rotmans, J. & Schot, J. (2010). *Transitions to sustainable development*. Routledge: London.

Hargreaves, T., Haxeltine, A., Longhurst, N. & Seyfang, G. (2011) 'Sustainability transitions from the bottom-up: Civil society, the multi-level perspective and practice theory'. CSERGE Working Paper 2011-01. Available at: <http://www.cserge.ac.uk/sites/default/files/2011-01.pdf> [Accessed 18 January 2013].

International Energy Agency (IEA) (2007) *Energy Policies of IEA Countries: The United Kingdom 2006 Review*. IEA: Paris, France. Available at: <http://www.iea.org/publications/freepublications/publication/unitedkingdom2006-1.pdf> [Accessed 11 February 2013].

International Energy Agency (IEA) (2012) *Energy Policies of IEA Countries: The United Kingdom 2012 Review*. IEA: Paris, France. Available at: <http://www.iea.org/Textbase/npsum/uk2012SUM.pdf> [Accessed 11 February 2013].

Ison, N., Hicks, J., Gilding, J. and Ross, K.. (2012). *The Australian Community Renewable Energy Sector – Challenges and Opportunities*. Prepared by a consortium including Backroad Connections, Community Power Agency

Lodge, G. (2011) 'Business Model for Community Power: How to be resilient in a rapidly evolving business environment', Paper at *COMMUNITY POWER CONFERENCE: Australian Communities Taking Charge of their Energy Use*, Bendigo, Victoria, 14 & 15 November 2011.

McDermont, M (2010) *Governance, Independence and expertise: the Business of Housing Associations*, Hart Publishing.

McDermont, M and Cowan, D (2009), 'Structuring governance: A case study of the new organizational provision of public service delivery'. *29 Critical Social Policy* 677-702,

Morgan, B (2008) Building Bridges Between Regulatory and Citizen Space: Civil Society Contributions to Water Service Delivery Frameworks in Cross-National Perspective. *Law, Social Justice & Global Development Journal*.

Morgan, B (2011) *Water on Tap: Transnational Governance of Urban Water Services at the Intersection of Rights and Regulation*. Cambridge: Cambridge University Press

Osborne, T. (2004) On mediators: intellectuals and the ideas trade in the knowledge society. *Economy and Society*, 33:4, 430-447.

Park, J. (2012) 'Fostering community energy and equal opportunities between communities', *Local Environment*, 17:4, 387-408.

Seyfang, G., Haxeltine, A., Hargreaves, T. & Longhurst, N. (2010) 'Energy and communities in transition – towards a new research agenda on agency and civil society in sustainability transitions'. CSERG Working Paper EDM 10-13. Available at: http://www.cserge.ac.uk/sites/default/files/edm_2010_13.pdf [Accessed 19 January 2013].

Seyfang, G. & Haxeltine, A. (2012) 'Growing grassroots innovations: Exploring the role of community-based initiatives in governing sustainable energy transitions', *Environment and Planning C: Government and Policy*, 30, 381-400.

Seyfang, G., Park, J. & Smith, A. (2012) 'Community Energy in the UK'. 3S Working Paper 2012-11. Norwich: Science, Society and Sustainability Research Group.

Shove, E., Pantzar, M. & Watson, M. (2012) *The Dynamics of Social Practice. Everyday Life and how it Changes*. Sage, London.

Shove, E. & Pantzar, M. (2005) 'Consumers, producers and practices: Understanding the invention and reinvention of Nordic walking', *Journal of Consumer Culture*, 5:1, 43-64.

Walker, G., Hunter, S., Devine-Wright, P. & Evans, B. (2007) 'Harnessing community energies: Explaining and evaluating community-based localism in renewable energy policy in the UK', *Global Environmental Politics*, 7:2, 64-82.