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1. Project overview

1.1. Introduction

Research has repeatedly highlighted the importance of delivering progressive energy policy which benefits vulnerable people and disadvantaged communities. CSE's distributional analysis of UK carbon emissions exposed the triple injustice of UK climate change policy: that the poorest emit the least carbon, pay the highest, and benefit the least from national climate change policy.

The community energy sector has evidence of the wide benefits locally-owned projects can deliver; detailed in multiple publications¹. We have also been conscious for some time that more projects emerge in more affluent areas, meaning many local authorities and low-income communities are missing out on the economic, social and health benefits that these projects bring. Whilst government initiatives to support community energy projects – notably the Urban and Rural Community Energy Funds – have had the potential to address this, the number of projects that have emerged as a result of these funds in low-income areas remains very low. There is huge untapped potential for more community-based energy projects in low-income areas; understanding the approaches needed to support this change is critical.

This project aimed to hear the stories of existing community renewable energy projects in low-income areas – to improve our understanding of the conditions required to instigate and sustain these projects, and so develop policy and practice recommendations for how more projects can be supported in low-income areas. The findings of the study are relevant for: local authorities and devolved administrations; community organisations; the community energy sector; national government; and funders.

¹ National Trust & Clore Social Leadership Programme (2013) [Social & Economic Benefits of Community Energy Schemes](#); APSE & CLES (2012) [Exploring the economic and social benefits of renewable energy schemes](#);

1.2. Project methodology

The first step of the project was to shortlist 20 projects for interview. This was done through sieving Urban Community Energy Fund applicants (administered by CSE) and asking for examples within our network of contacts, then comparing these with Indices of Multiple Deprivation data (focussing on projects operating in areas within the 20% most deprived neighbourhoods). Of the 20 shortlisted projects, 11 projects responded positively to our request for interview. The interviews collected information on: project history; how projects built momentum and overcame barriers; the role of community in projects; key partners; and critical success factors. After initial analysis of interview findings, interviewees were invited to a roundtable event to discuss these and ground them in practical policy recommendations. Further representatives from the community energy sector, local and national government, funding bodies, and the community development sector were also invited to attend the event (refer to Appendix I for a list of roundtable attendees).

Interviewed projects

Project	Overview of organisation / project	Renewable energy element
Repowering London , London	A not-for-profit organisation originally set up through Lambeth Council's low-carbon work in partnership with an active local Transition Town residents group. Repowering London started by developing solar PV schemes on social housing in their area with an emphasis on co-production, working with local residents, community groups and local authorities. Repowering London now acts as an umbrella organisation offering support to other groups wanting to set up community energy projects. IMD ² of project locations: 1	-Solar PV on social housing blocks (236 kW installed across 4 rooftop sites)
Plymouth Energy Community , Plymouth	A professionalised Community Benefit Society (CBS) that grew from a Plymouth City Council manifesto commitment to set up an entity that could tackle rising fuel bills and support fuel poor households. PEC has installed PV on schools and public buildings, and has developed a large-scale solar farm. All the profit from the renewables goes into their outreach work supporting fuel poor households. IMD of project locations: multiple	-Solar PV on schools and public buildings (800kW) -Large-scale solar farm (4.1 MW)
Ambition Lawrence Weston , Bristol	ALW is a development trust and neighbourhood forum charity which grew out of a residents' regeneration group (set up in 2011 in reaction to the planned closure of their local college). Whilst they don't develop renewables themselves they tap into the community benefit funds of two large-scale commercial renewable energy schemes. This funds their fuel poverty outreach work. IMD of project location: 1, 2 and 3	-Large-scale wind (indirect) -Large-scale solar (indirect)
Gen Community , multiple locations	A slightly different kind of project to the rest in that Gen Community is a facilitating organisation rather than being embedded in a local community – their tagline is ' <i>a vision of how new forms of finance can empower individuals and communities to catalyse social impact</i> '. It was set up by people with professional qualifications in energy and finance. Gen Community does the work to develop renewable energy projects and partnerships and attract investors, and then sets up a community-embedded Community Benefit Society which then 'owns' the project, with profits going into fuel poverty outreach work. A good example of a CBS set up and run by Gen Community is Energise	-Solar PV on houses (Energise Barnsley project: 2MW rooftop solar)

² The Index of Multiple Deprivation (IMD) measures relative levels of deprivation in small areas or neighbourhoods: 1 = 'most deprived' and 10 = 'least deprived'.

	Barnsley www.energisebarnsley.co.uk . IMD of project locations: multiple	
Awel Aman Tawe , Mynydd y Gwrhyd	A resident-led charity set up in 1998, this organisation grew out of a local regeneration charity which was looking into asset-based community development. A scheme was set in motion for a five wind turbine community energy scheme. After a 19 year planning battle (!), Awel Cooperative has now commissioned a two turbine project, and they hope to do lots of fuel poverty outreach work with the profits. Awel Aman Tawe also set up Egni co-operative which has installed solar PV on seven community centre roofs. IMD of project location: 5	-Large-scale wind (4.7MW) -Roof-top solar (179kW on seven buildings)
Tower Power , Edinburgh	A project developed and delivered in partnership by Community Energy Scotland (CES) and a local community development organisation (Comas). Comas had been working in a very low-income part of Edinburgh for many years and learnt that fuel poverty was a key issue. They have partnered with CES to try and tackle this through a collective purchasing project. This is still in development stage but it's an interesting and different kind of project, which has the local community at its heart, and there are lots of lessons learned. IMD of project location: 1	-Collective purchasing of energy (to secure a better price) (in development phase)
Hartlepower , Hartlepool	Originally a Community Interest Company (CIC) (now a charity) that was set up by four residents in 2015 with funding from the coalition government's Urban Community Energy Fund (UCEF) ³ . A key aim was to re-enable the struggling local voluntary sector through community renewable energy projects. So far they have installed solar PV on one school. They are also working with the Joseph Rowntree Foundation as part of their anti-poverty initiative in Hartlepool. IMD of project locations: multiple	-Solar PV on school (25kW rooftop solar)
Livewire Community Energy , Liverpool	A CIC started through a neighbourhood hub (built as part of a £30million Olympic legacy project), and off the back of lots of solar PV projects that the council was undertaking (on social housing) as part of their fuel poverty work programme. Livewire Community Energy was set up, and with UCEF funding, undertook further work to enable the installation of PV on local businesses and community buildings. IMD of project location: 1, 2 and 3	-PV on business and third sector roofs (119kW on four buildings)
Scotswood Centre / Scotswood Sustainable Energy , Newcastle	A community centre set up 27 years ago in response to social unrest in this deprived Newcastle community. The centre received a UCEF grant to explore the feasibility of community renewable energy in the area, with the ultimate aim of this being an income source for the centre's activities. The centre and CIC are now exploring the potential of PV on a local business's roof. IMD of project location: 1	-Exploring potential of solar PV on a business (no installations)
Meadows Ozone Energy Services (MOZES) , Nottingham	MOZES is a community owned company, set up as a result of a multi-partner collaboration which worked on a National Lottery bid aiming to address crime and poverty in the Meadows community through making the area the first low carbon neighbourhood in the city. The group has secured various funds to undertake feasibility studies, install PV on houses, run an interest-free loans programme for carbon-saving measures, and explore domestic storage options. IMD of project location: 3	-Solar PV on houses

³ UCEF was launched by the coalition government in November 2014 and was intended to be a rolling grant and loan fund to support the development stages of community renewable energy projects. However, following the 2015 general election, the Conservative administration scaled back the scheme in the first instance, restricting it to the small grant element only, and then closed the scheme completely in July 2016.

<p>Witton Lodge Community Association / Catalyst Mutual Enterprise CIC, Birmingham</p>	<p>A community association and community landlord established in 1994 by local residents in Perry Common, in response to a proposed housing demolition. The association (in partnership with Catalyst Mutual Enterprise) received a UCEF grant to explore the potential for installing a biomass boiler and ground source heat pump to power four housing tower blocks and a school. The project did not progress due to a lack of funding and support from the council, and withdrawal of interest from the school. IMD of project location: 2</p>	<p>-Exploring potential of biomass and ground source heat pump (no installations)</p>
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2. Key findings

The key findings of the interviews, combined with discussions from the roundtable event, are outlined below.

2.1. Critical stakeholders

People are critical to community energy projects – they bring skills, knowledge, time, resources, and links to other useful people, organisations and institutions. The stories of the 11 projects in this study revealed that in low-income communities, where these capacities may not be as readily available amongst residents as in more affluent areas, the involvement of stakeholders becomes more critical for bolstering community capacity and *bridging* social capital (linking to people and organisations outside of the immediate community). This section explores those stakeholders that were critical in the interviewed projects.

2.1.1. Working through existing community organisations

The importance of working with existing community organisations was highlighted across projects. Particularly important were existing community development and regeneration organisations, which are embedded in and trusted by the local community – and in most cases had originally been set up by local residents to address community issues (and so have a community mandate).

These organisations work from the basis of a community development, rather than a low-carbon agenda, which interviewees noted as being important where there was the potential for distrust and apathy about potential ‘sustainability’ projects. As these organisations are knowledgeable about local dynamics, they are best placed to support community engagement with, and faith in, sustainability projects (avoiding the impression that projects are being ‘done to’ communities), and ensure that the projects address community priorities and build long-term social capital.

It should be noted that even in the projects where locally-embedded community development organisations were actively involved, interviewees still stressed the ongoing difficulties they faced with engaging members of the community in the energy project and ensuring it was inclusive – with residents ‘having bigger things to worry about’. Community engagement was experienced as something needing dedicated capacity, skill and determination, and it cannot be taken for granted that all local people will respond, nor should its significance be sidelined.

Tower Power, Dumbiedykes, Edinburgh

A project developed and delivered in partnership by **Community Energy Scotland (CES)** and **Comas** (a local community development organisation). Comas had worked in Dumbiedykes for many years and learnt, through doing a community survey, that fuel poverty was a key issue in the community. They partnered with CES and secured funding through the Scottish Government's Local Energy Challenge to try and tackle this through a collective purchasing project – energy is bulk purchased through a community service company thereby securing a lower price. Whilst the project is still in the development phase, the involvement of Comas has been critical to the project's progression, especially given its innovative nature and the fact that the project's model requires community engagement – residents can choose to become members of the community service company, with the ultimate aim that some members become board members and run the company. Comas stressed the importance of having a locally trusted organisation in this process: *'Trust – generally people in disadvantaged communities don't like change... And changing that requires a lot of trust. And on top of that, energy is an incredibly emotive thing to talk about – it's heat, and warmth, and TV, and it's really important. And getting people to think differently about that, to think that it could be done a different way, even though it's not really risky for them at all, is really, really hard... And having a community organisation like comas already there is critical'* (Joe Gair, Comas)

Recommendations

What?	Who?
Develop community energy stories that resonate with the objectives of community development organisations – demonstrating the breadth of issues they engage with (health, deprivation, housing standards etc.).	Community energy sector
Engage umbrella community development organisations, such as Locality and ACRE, regarding the social and economic benefits of community energy projects.	Community energy sector
Greater engagement of local community development organisations in community energy projects.	Energy agencies Universities Local authorities
Explore community energy opportunities with community assets.	Community energy sector

2.1.2. Working with local authorities

Local authorities were an important actor across most of the interviewed projects. Their roles included:

- Being the driving force behind projects
- Levering in political and local authority officer support
- Convening multiple stakeholders (both internal and external) – in a few cases this acted as the initial 'spark' behind projects, even where local authority involvement then lessened
- Providing data to facilitate the targeting of community energy activities
- Enabling and encouraging community-level projects to be more strategic in their activities and impact
- Providing finance for projects (grants and loans) (discussed further in section 2.2.1)

The engagement of local authorities was most prominent where they had political and policy-based mandates to address energy-related issues (i.e. fuel poverty, carbon emissions, broad sustainability etc.); such mandates often translated into officers with remits (and therefore resources) to engage with energy, and greater political buy-in.

There was some disagreement at the roundtable discussion regarding the benefit of engaging a local authority (where they were not already engaged in a project). Some projects noted the huge amount of time and effort put into trying to engage with their local authority, and the lack of interest received in return. They, therefore, warned against diverting efforts into a potentially fruitless endeavour. Another project noted how the local authority's slow decision-making complicated their community engagement. Consequently, the project team were wary of promising things to residents that wouldn't be delivered.

Whilst local authorities were noted as key stakeholders in most cases, their severely reduced capacity was noted as a likely hindrance to future engagement in community energy. In this context, highlighting the most effective roles that local authorities can play will be important – i.e. not as the driving force but in using their authority to bring together critical stakeholders. The presence of 'wilful individuals' (people who are personally committed to the furtherance of community energy or fuel poverty schemes) working within local authorities will also become more important.

Livewire Community Energy, Liverpool

A community project (and CBS) which has installed solar PV on the buildings of local third sector and voluntary organisations, and run energy awareness and training events, in an area of high deprivation. One of the founding directors of the CBS, Dave Cowley, is also Warrington Borough Council's Head of Services (with a responsibility for domestic energy efficiency). Dave worked on local authority projects installing solar PV on social housing and building low-carbon council housing – and through this gained experience of project managing the installation of such schemes, and recognised an interest in solar PV from local third sector organisations (who were struggling with high building running costs). This, combined with a personal interest in increasing awareness of community energy, saw the birth of Livewire Community Energy. Dave brings his local authority experience, and critical internal and external relationships to support the work of Livewire Community Energy. Dave also stresses the importance of both having support from the council and concurrently being able to distance itself from it: ***'Livewire Community Energy has been very careful to put different hats on, so people don't think of it as a council thing. Having said that the council have been extremely supportive – they came in and saved the day in terms of funding when the policy environment changed'*** (Dave Cowley, Livewire Community Energy)

Plymouth Energy Community, Plymouth

A CBS that grew from a Plymouth City Council manifesto commitment to set up an entity that could tackle rising fuel bills and support fuel poor households. PEC has gone on to install PV on schools and public buildings, and has developed a large-scale solar farm. As an initiative that was driven by the city council, whilst it operates as an individual entity, PEC is embedded in the council – PEC’s staff are actually council low carbon officers (PEC buys council staff time (at a subsidised rate) through a shared services agreement). Jenny Coles from PEC said that not only was the financial support from the council critical for being able to fund skilled staff, but that the credibility and trust that results from having the council name has been very important in the fuel poverty outreach work they do. Concurrently, Jenny also stressed that the work PEC does feeds into the city’s broader agenda and identity – e.g. when PEC was established, Plymouth Council was a ‘cooperative council’ (the principle being that the council actively supported cooperatives) and a ‘social enterprise city’ (a centre of incubation for social enterprises). ***‘The city does have a stake in it and are reaping the benefits...and it’s pretty unusual for the council to have taken a bit of a risk, to put its money into something, especially in the context of austerity, to be saying, well actually we’re investing in our communities, and we’re giving them control of something. It’s paying dividends, and it makes us look really good, when everyone else is shutting libraries, sacking lollypop ladies...’*** (Jenny Coles, PEC).

Energise Barnsley & Gen Community, Barnsley

Energise Barnsley is a CBS set up and run by Energise Barnsley in 2015. It was set up with the aim of deploying solar PV at scale for Barnsley Metropolitan Borough Council using commercial expertise whilst retaining a core community energy model in order to deliver a project with strong social impact. It is a partnership between Barnsley Metropolitan Borough Council and Berneslai Homes (a local social housing provider), with Gen Community Ventures, British Gas Solar, and Social Finance (a socially motivated finance intermediary). It has seen the installation of over £1million of solar PV panels on council properties and Berneslai Homes roofs, and the setting up of a community benefit fund which receives any surplus (so far £15,000 has been allocated from this fund to support community initiatives, including: energy advice clinics provided by AgeUK and the activities of a local resident-led community development group). As a result of the Energise Barnsley initiative, Barnsley Metropolitan Borough Council has fully invested in the concept of community energy: the council is the custodian trustee of the CBS and has representation on the CBS board and Energise Barnsley features in the council’s 10 year energy plan and is being seen as a key mechanism through which the council can help alleviate fuel poverty within the borough (which affects 9,000 homes). Andy Heald from Gen Community stressed the importance of council involvement: ***‘You need an anchor man or woman at the council, who can pull lots of levers – finance, asset management, legal...someone who has an understanding of the community benefit model...You need that engagement, and also from the top as well. It’s important to get that support so you can build momentum behind it...to have stakeholders who are in it from the long-term’.***

Recommendations

What?	Who?
Produce a guide book for how to work with local authorities, with good practice examples of successful municipal-community energy partnerships/projects.	Community energy sector Fundors
Develop an evidence base (through reviewing existing research, and conducting further research where needed) showing the	Community energy sector Fundors

potential of community energy in low-income areas to strengthen local resilience and economies, and in turn reduce spending in other local authority sector areas. Communicate this to local authorities.	
Build local political support for community energy by engaging and inspiring local politicians (in particular those representing the new spatial government entities – city regions and mayors) regarding the benefits of community energy projects, including stressing the potential of community energy to deliver against multiple objectives (e.g. health, housing, community development, environment).	Community energy sector Local authorities
Engage with umbrella organisations representing local authorities – e.g. APSE⁴, HACT⁵ – regarding the benefits of community energy projects – e.g. opening up ‘community finance’ to the local authority; the potential of community-level activities to generate public support for strategic low-carbon agendas and strategies.	Community energy sector Local authorities
Explore community energy opportunities with local authority assets (including assets being transferred into community ownership) in low-income areas – e.g. Durham County Council’s European-funded REBUS project (2016-2021)⁶.	Local authorities Community energy sector

2.1.3. Bringing businesses on board

A few projects engaged with local businesses – this was predominantly with the aim of local small to medium sized enterprises (SMEs) hosting community solar PV schemes, and in turn benefitting from onsite usage. Scotswood is a good example of where a larger local firm was engaged to host a scheme, but a key motivating factor for the firm was alignment with their corporate social responsibility (CSR) obligations.

Engaging more with businesses was highlighted at the roundtable event as an important step for the community energy sector, especially in the context of reduced policy and financial support mechanisms. Whilst community energy has traditionally engaged more with SMEs, it was suggested that more could be done to engage and partner with larger businesses – and in the case of low-income areas, this could fit especially well with businesses’ corporate social responsibility obligations (larger businesses are more likely than smaller ones to have formal CSR strategies and objectives).

⁴ APSE, the Association for Public Service Excellence, is a networking community that assists Local Authorities who are striving to improve their frontline services.

⁵ HACT is a think/do tank established by the housing association sector with the aim to develop and share innovative approaches to meeting changing needs within the sector.

⁶ [REBUS](#) is a European partnership project aimed at improving the energy efficiency of public buildings. Durham County Council’s involvement in the project is focussed on engaging with those who run community-owned buildings and who are taking on asset transfer buildings, such as community buildings and village halls, from the council. The council’s Low Carbon Economy Team will support these stakeholders to better understand how to improve the energy efficiency of these buildings, learn about alternative energy technologies, and increase their capacity to make improvements.

Gen Community, multiple locations

A CBS which develops community energy projects by developing a partnership and then renewable energy project in a given locality, attracting investors to the project, and then asset-locking the installed project into a locally-based CBS for the benefit of the community. Gen Community hinges on combining commercial expertise with a social benefit model, and this means not shying away from working with the private sector. Energise Barnsley is a case in point, which has seen the installation of over £1million of solar PV on houses and housing association roofs, and commercial and public buildings, and the setting up of a community benefit fund which receives any surplus (which funds energy advice clinics provided by AgeUK, amongst other things). The project was financed through a £2million underwriting loan from Ignite Social Enterprise (a social investment fund backed by Centrica), a £1.2million long-term debt facility from Charity Bank, and £800,000 raised through the 'Barnsley Solar Bond'. Installations to date are: 5,627 solar PV panels on residential and commercial rooftops; solar PV panels in nine schools; and 40 residential batteries. This equates to £65,000 in electricity bills savings and 1,138 tonnes in reduced CO2 emissions. Andy Heald from Gen Community stressed that by partnering with Centrica, they were able to build a larger scheme by using Centrica's balance sheet – in turn developing a scheme of a scale which people could emotionally and financially invest in.

Recommendations

What?	Who?
Greater engagement with Local Enterprise Partnerships – LEPs can develop their own energy strategies, and have access to finance through the Government's Local Growth Fund. This is an opportunity to engage LEPs and demonstrate the potential of community energy in bolstering the economic regeneration of low-income areas, and encourage LEPs to include community energy groups and initiatives in such strategies where these exist.	Community energy sector Energy agencies
Publicising multiple and diverse stories of successful private sector-community energy partnerships and initiatives.	Community energy sector
Promote the giving of time and skills through schemes such as BeyondMe⁷ and Do-it⁸.	Community energy sector Energy agencies LEPs

2.1.4. Energy agencies

Energy agencies are professional organisations which deliver energy support services and manage energy projects, some of these organisations can start as community energy groups or initiatives and grow into semi-professional or professional enterprises. Examples cited through the interviewed projects include: Nottingham Energy Partnership, Bath and West Community Energy, Plymouth Energy Community, Centre for Sustainable Energy, and Repowering London. Energy agencies were very important in the stories of a few projects. These organisations had various supporting and enabling roles in these projects: they brought expertise in scheme development, and knowledge of how to work through hurdles. They were also a critical local stakeholder who put community energy 'on the table' in place-based projects that aimed to address social issues and build the social capital of a deprived community; they levered in funds to support community energy activities in low-

⁷ [BeyondMe](#) matches professionals with charity projects that need the skills and time of professionals.

⁸ [Do-it](#) is a national volunteering database through which people can search for and advertise volunteering opportunities (based on location, interests and skills).

income areas; they provided advice, expertise and resources to aspiring community energy projects; and they brought with them established partnerships with key energy stakeholders (e.g. Distribution Network Operators, local and national government, housing providers) and the ability to mediate between them. Established energy agencies are also able to provide external support that is *ongoing* and some projects noted the importance of having long-term consistent support, but in most cases this was something many projects struggled to access. Having community energy support that is consistent and long-term is critical in low-income communities where projects may take time to emerge, communities are mistrustful of ‘yet another (short-term) project’, and where the mediating between multiple stakeholders is particularly important. Energy agencies also have established skills and knowledge to provide support with day-to-day domestic energy issues and energy literacy, as well as refer to other relevant agencies that provide support with broader poverty-related issues. This support is critical in low-income communities, and has the potential to remove barriers to people engaging with energy at a community-level.

Meadows Ozone Energy Services (MOZES), Nottingham

MOZES is a community owned company, whose origins are rooted in a multi-partner collaboration which worked on a National Lottery bid aiming to address high rates of crime and poverty in the Meadows community, through making the area the first low carbon neighbourhood in the city. The group has secured various funds to undertake feasibility studies, install PV on houses, run an interest-free loans programme for carbon-saving measures, and explore domestic storage options. A critical partner in MOZES has been Nottingham Energy Partnership (NEP), a local energy agency. The CEO of NEP is also on MOZES’s board of directors. Nottingham Energy Partnership undertook early studies to demonstrate how the Meadows could reduce its energy use and employ renewable energy, and they have continued to provide critical energy expertise. Through partnering with Nottingham Energy Partnership, MOZES also secured a grant from Scottish and Southern for a full-time community energy advisor, and then went on to secure a large low carbon communities fund grant.

Recommendations

What?	Who?
Support for the establishment of local energy agencies in areas not currently supported by one.	Department for Business, Energy & Industrial Strategy (BEIS)
More collaboration between energy agencies and community development organisations.	Energy agencies and community development organisations, with financial support from BEIS.

2.2. Building capacity

A clear message from across the projects was the large amount of work needed to move a project from the idea stage to actual operation.. This requires ongoing commitment from project participants, but also underlines the importance of bolstering project capacity and the ongoing resilience of projects – through funds, mentoring, and community capacity building.

2.2.1. Funds to buy-in capacity

All projects stressed the importance of external funds. Funds that groups accessed included: grant funding (e.g. National Lottery; M&S); government-funded grant programmes (England – Urban Community Energy Fund; Wales – Ynni’r Fro; Scotland – Local Energy Challenge); European funds

allocated for low-income areas; Cabinet Office innovation funds; prudential borrowing; and local authority and central government-backed loans. In some cases the launch of a fund was the spark behind a project happening.

Funds were used to: undertake feasibility studies of the community renewable energy potential in a community; to seek legal advice; to advise groups on business plan development; to support community engagement; to run local training schemes and more. In some cases, having the funds to buy the time of an 'expert' was critical in opening the doors of important stakeholders as the expert garnered more trust and confidence from the stakeholders.

The nature of funds is important and different funding streams enable different project approaches. The Urban Community Energy Fund (UCEF) was a key fund cited by some projects⁹. The qualities of this fund were critical in enabling 'communities' and community organisations who had not engaged with energy before (which is more often the case in lower-income areas) to explore the potential for community energy by paying for professionals to undertake broad scoping work, which they could then use as an engagement tool to show other local residents what could be possible. Comparatively, two of the interviewed projects showed the potential of much larger funding pots (e.g. The Lottery) to bring together multiple stakeholders and for community energy to be an element of larger, long-term community development projects (that were focussed in low-income communities).

The stories of a few projects highlighted the importance of local authority financial support, which does not need to be a cash grant, as for some groups this came in the form of significant amounts of staff time. Local authorities were also the source of grants, loans and prudential borrowing for some projects. Several projects described how local government backing was critical in terms of accessing other funding, as the backing of the local authority gave investors trust in their project.

There was a general sense from interviewees that the availability of funds to hire professional advisors and consultants (including those from other community energy groups with successful projects under their belt) is becoming more critical as the amount of unfinanced (i.e. voluntary) advice, resource and external capacity that groups and projects can tap into is rapidly diminishing.

⁹ The Centre for Sustainable Energy was the lead administrator of the Urban Community Energy Fund on behalf of the Department for Energy & Climate Change, and so some of the projects we recruited for interview resulted from CSE knowing groups through their application to this fund.

Scotswood Centre and Scotswood Sustainable Energy, Newcastle

The Scotswood Centre is a community centre in a deprived area of Newcastle set up 27 years ago in response to social unrest. The centre now delivers support services and activities, and has established a community post office, shop and café. Leigh Davison, the chair of the Scotswood Centre, described how the idea of a community energy initiative emerged in response to learning about the Urban Community Energy Fund (UCEF) – *‘we’re always looking for potential future ideas which might generate an income for the charity, and this came up and it was so left-field from anything else that we’d done...the overarching vision was, if the community energy scheme could generate some funds, and then any profits could be reinvested in the charity...it was something that seemed very interesting and very different’*. The centre secured two UCEF grants – the first to undertake broad scoping work to explore what renewable energy opportunities existed in the area, and the second to undertake detailed technical surveys of one potential site (the roof of a large local engineering firm). The long-term vision for the project was that any profits from an installed scheme would go directly into supporting the activities of the Scotswood Centre and providing energy outreach activities to local residents. Leigh stressed that having funds to pay a consultant was critical in engaging the local firm which they hoped would host the community energy scheme, and other key stakeholders, as the consultant was able to provide expertise in gaining stakeholders’ interest in the project. Scotswood Sustainable Energy is still pursuing this project with the local engineering firm, but, nothing has been installed as yet

Recommendations

What?	Who?
Encourage corporations (e.g. legal, engineering) to dedicate paid staff time to community energy activities (can be through facilitated schemes, such as BeyondMe¹⁰).	Community energy sector
Support more peer mentoring programmes that can provide consistent and long-term support – with more support relating to working in low-income communities (e.g. effective community engagement, working with stakeholders etc.).	Department for Business, Energy & Industrial Strategy Funders
Local and national government grant and loan schemes to support community-based energy activities in low-income areas.	Department for Business, Energy & Industrial Strategy and Department for Housing, Communities & Local Government
A community energy innovation fund, with emphasis placed on projects in low-income areas.	Department for Business, Energy & Industrial Strategy
More engagement with a diversity of funders regarding the opportunities in community energy (e.g. to address health and social objectives).	Community energy sector

2.2.2. Building community capacity

As noted in section 2.1.1, community development and regeneration organisations were central to six of the 11 projects we interviewed. In three of these six, the local organisations saw community renewables as an option for creating a community asset which could then fund (through the income

¹⁰ [BeyondMe](#) matches professionals with charity projects that need the skills and time of professionals.

the renewables generate) further development activities. In other cases, projects sought to directly build community capacity through: the general involvement of residents in the community energy project; creating training opportunities within the renewables installation process; establishing relationships with stakeholders outside of the community and empowering local residents by giving them an opportunity to be more engaged in decision-making on their local area.. These stories demonstrated that there was recognition of the potential to build community capacity through community energy projects – so seeing community energy as a means to an end, with the end being something that feels relevant to that community, such as skills development and improving employment prospects. This recognition was a critical factor in projects emerging, gaining traction and becoming more embedded within, and led by, the local community.

Some interviewees stressed that funding programmes which support larger and longer-term projects are critical for low-income areas. This is not only because of mistrust which has built up in communities in response to multiple short-term projects which ‘come and go’, but also because larger and longer-term projects provide greater opportunity for time to be put into building confidence and faith in local residents, so that they feel empowered to get involved in a project. Where projects are led or semi-led by residents, this engenders trust in other residents. It builds relationships, social capital and, where the project is being facilitated by a non-local organisation, increases the chance that there will be a meaningful legacy after the project has ‘finished’.

Repowering London & Banister House Solar, London

Repowering London has grown into an organisation which co-produces community energy schemes with community groups and local authorities – it has helped to develop community solar schemes on housing estate roofs in Brixton and Hackney. From its inception, the Repowering London team (a combination of Transition Town Brixton, Lambeth Council, and the Lambeth green community champions network) were keen that projects were built around the needs and desires of estates’ communities. Banister House Solar – Repowering’s first project in Hackney, which it helped to develop with local residents and Hackney Energy – is a case in point. A few already-interested residents became engaged early in the project and, through community outreach, Repowering and these residents learnt more opportunities for paid work experience, youth engagement and upskilling were community priorities. When contractors were employed to install the PV panels, a condition of the contract was to offer work experience to local residents. A mentoring and internship programme was set up through which young people could gain interpersonal skills (e.g. through charring meetings) and technical skills (e.g. marketing, energy efficiency training), and build confidence through their involvement.

Leila, a resident on the estate and Director of Banister House Solar, stressed the importance of the opportunities given to young people to build skills and gain employment in building broader community support for the project, and the opportunities the project offered her in building relationships with other estate residents: ***‘On this estate, nothing ever seemed to get done, the council let the residents down, so there was a sense that ‘oh this isn’t going to happen’, so getting them to believe that this was going to happen was difficult...a lot of things that helped people to see the project as something positive was seeing all the young people, week in week out, knocking on people’s doors, being involved...for a lot of people, just seeing that was really important...that the young people engage with something positive...for the young people to see their opinion being valued, see things being followed through, it gives them a voice. It’s so, so important in a place where they feel they’re on the outside...them being accountable for their own area....Now people are proud to say, ‘this happened on our estate, we’ve got this to show for ourselves’*** (Leila Fortunato, Banister House Solar)

Recommendations

What?	Who?
Develop guidance on best practice in creating skills, training and longer-term employment opportunities for local people when community energy projects are established.	Community energy sector
Communicate to fund managers and successful grant-holders of large-scale community development-focused grant schemes, such as Big Local, about the opportunities in community energy for building community capacity.	Community energy sector. Existing grant-holders of large-scale community development schemes, who recognise and are exploring community energy opportunities.
Support local authorities to engage in long-term energy resilience projects in low-income communities (e.g. CSE's Powering Up project¹¹) which are rooted in community priorities and have an emphasis on community empowerment through building participation, capacity and leadership.	City-regions; Department for Business, Energy & Industrial Strategy

2.2.3. Sharing knowledge, models & ideas

A key theme that emerged from the interviews was the importance of sharing ideas, lessons, knowledge and new approaches between projects and groups. This was considered especially important looking forward, in the context of a different policy environment. At the roundtable event, attendees noted that whilst there are well-trodden routes and events for sharing practice between well-engaged community energy actors, there was less of a clear picture regarding how practice is shared with those who have never engaged with community energy. Also, for those projects that were interviewed where they were not multi-stakeholder endeavours (at the outset) there was less in the way of peer-to-peer sharing and learning and more stress on self-learning and securing knowledge through paying consultants. Related to the need to understand how practice can be better shared with new 'entrants' is the need to inspire new community energy actors in low-income areas, and to have multiple and varied stories of community energy projects which resonate with the circumstance, needs and resources of these new actors.

Recommendations

What?	Who?
Building and communicating a variety of stories of community energy in low-income areas to actors in these communities (e.g. residents, local community development organisations, housing providers).	Community energy sector Local energy agencies

¹¹ For further information on this project, please see [here](#)

2.3. Policy

All of the interviewed projects stressed the importance of policy for their projects, and the viability of projects being dependent on bottom-up interest, engagement and resources, but also top-down policy hooks and support. Policy frameworks created mandates and responsibilities which encouraged the development of community energy projects; policy commitments led to funds which enabled projects to happen; and a positive policy framework gave people the confidence to invest (financially and emotionally) in a project.

2.3.1. Opportunities in community-level planning

One of the groups that we interviewed – Ambition Lawrence Weston – had also been the driving force behind the development of their community’s neighbourhood plan. The two interviewees from this group noted a key motivator for them was the community-level desire to proactively and positively respond to a loss of important community assets, and to have more control and say over the development of their neighbourhood to ensure it met their local needs: the neighbourhood plan was seen as a key route for achieving this. The Lawrence Weston Neighbourhood Development Plan (adopted 2016) creates a long-term policy context which is supportive of renewable energy and community energy projects, and (more critical for their community, which has high levels of fuel poverty), that the energy performance of new housing is prioritised.

The group also stated that the community’s neighbourhood plan was a key factor in being able to lever in £1million through the National Lottery’s Big Local programme: the neighbourhood plan gave the Lottery trust and confidence to ‘invest’ this money in Lawrence Weston because the plan provided a clear outline of community priorities (as defined by residents).

The National Planning Policy Framework encourages local plans and neighbourhood plans to positively engage with community energy – so there is a policy-level mandate. Neighbourhood planning also seems to be politically *sticky* (having survived the transition from coalition government into the current Conservative government, and maintained broad support across the political spectrum). This could make neighbourhood planning a long-term opportunity for low-income communities to start community energy projects, as well as to pursue broader community objectives (e.g. on affordable housing, fuel poverty, and community services). However, despite a government-funded support programme for neighbourhood planning (with a maximum grant of £15,000 per group), rudimentary analysis does show that more neighbourhood plans are being developed in affluent areas as compared with lower income areas – so there remains the barrier of engagement.

Recommendations

What?	Who?
Greater emphasis on the opportunities for community energy in neighbourhood planning.	Community energy sector Locality Department for Business, Energy & Industrial Strategy Department of Housing, Communities and Local Government

2.3.2. Local & national policy

The stories from all the interviewed projects demonstrated the strong influence of policy, both local and national, on each project’s progress. At the local level, as noted in section 2.1.2, where there was a supportive local policy framework, from this flowed officer commitment, resources, and funds (good examples being Repowering London, Plymouth Energy Community and MOZES). At the national level, feed-in tariffs (FITs) were a consistent policy and financial motivator behind projects, and a critical factor upon which projects’ business models, and hence their viability, were built. Reductions in FITs had implications for projects’ ability to secure finance, with smaller projects becoming immediately unviable; concurrently, the introduction of the need to allocate wind farm sites in a local or neighbourhood plan dissuaded groups from exploring this option.

Across all projects, and reiterated by roundtable attendees, was the need for a clear and long-term policy framework which tells a strategic story about the government’s commitment to community energy, and the broader context of climate change mitigation and adaptation – and for this to be cross-departmental and less vulnerable to changing political landscapes. The resilience of emerging projects is critical in a shifting policy landscape, and this resilience will be weaker where there are not latent resources, skills and knowledge in newly started projects.

The positive Scottish policy context (target of 500MW generating capacity to be locally owned by 2020) provides a good example and reminder of the potential policy has to support further growth in the community energy sector.

Recommendations

What?	Who?
Letter from secretary of state to all council leaders and chief executives encouraging engagement with community energy activities.	Secretary of State for Business, Energy & Industrial Strategy
Local-level duties on reducing energy demand, reducing CO₂ and increasing renewable energy generation.	Department for Business, Energy & Industrial Strategy
Further research exploring opportunities for ensuring the current smart and more flexible energy system push is empowering for low-income communities rather than exclusionary.	Department for Business, Energy & Industrial Strategy; Energy agencies; Universities.

2.4. Funding & finance

A key theme emerging from the projects we interviewed was the recognition that the current policy and financial climate is different (in multiple ways) to the context under which many of these projects were developed. Some projects and roundtable attendees stressed uncertainty about the future direction of community energy given the current policy and fiscal context; others discussed ideas for how the sector can positively adapt to this new climate. What is clear is that the level of government subsidy provided under the old FIT regime, whilst supporting a whole generation of community energy schemes to be developed (with business models through which any debt finance could be re-paid, investors could be re-paid (with interest), and additional profits invested in community-based activities) was also hugely profitable for commercial schemes (which could be argued was not the best use of public funds). At its heart though, the FIT regime was designed entirely to meet carbon reduction and climate change targets. Notwithstanding the fact that early entrants (both commercial and non-profit) made very generous margins on their projects, it was

simply not a financially sustainable situation for the former Department of Energy and Climate Change to maintain these, since their remit was not to create income streams for social good, but merely to reduce carbon emissions and encourage the deployment of renewable energy. An argument could be made that the FIT rates were, in the final stages, cut too severely and too quickly, leaving a range of projects financially unviable, but the central premise that the regime was financially unsustainable still holds. New models and ideas are emerging within this more constrained policy and fiscal climate, both in the commercial and community energy sectors. The next section explores some of the ideas discussed by projects and roundtable attendees. Ahead of this, there are key lessons that can already be learnt from the experiences of these projects:

- Projects accessed varied and often multiple funds – ranging from charitable and government grant schemes (local, national and European), to prudential borrowing and local authority and central government-backed loans. Having funds in the bank can help projects secure further finance as it gives investors confidence in them.
- Projects that were multi-stakeholder endeavours from the outset accessed ongoing funds more easily – stakeholders bring with them direct and indirect access to funding pots (e.g. local authority officers who can access internal funds; energy agencies who have established relationships with funders and have the status to access funds; universities who can access large-scale and long-term funds).
- Having local or national government backing can be critical in terms of accessing larger-scale finance, giving investors trust, and undergoing due diligence.
- One project stressed the importance of communities, who have access to community benefit funds (from large-scale renewable energy schemes), having control over how these funds are spent – there are examples of restrictions being placed on funds, where only low-carbon activities can be funded through them, creating a potentially disempowering situation for the recipient community.

2.4.1. New business models & sources of finance

Outlined below are some of the future directions for the community energy sector discussed by projects and roundtable attendees:

- In the case of small-scale schemes, more collaboration with higher energy users (e.g. schools, leisure centres). In the current climate, projects are more viable where the size of the scheme is matched to the building's electricity usage, so that a greater proportion of the electricity generated on-site can be sold directly to the building, and so reduce the building's demand for grid electricity.
- Greater emphasis on energy efficiency and behaviour change – which has traditionally been a harder direction for gaining traction in communities.
- More collaboration with Distribution Network Operators on fuel poverty and community energy projects.
- Further exploration of smart demand and supply projects – e.g. Energy Local¹² has developed a scheme through which households can collectively secure a lower price for power by demonstrating that they are using locally-generated renewable energy (and therefore not putting demand on the broader distribution network).
- Greater learning from post-subsidy models in the commercial sector.
- More transfers of commercial schemes into community ownership, and greater emphasis on co-ownership of schemes.

¹² For further information, see: <http://www.energylocal.co.uk/>

- Shifting emphasis on funding sources and finance – e.g. peer-peer investment; grant funding community shares for community organisations.

Recommendations

What?	Who?
More support in low-income communities for models like Gen Community, where community energy assets are developed by professional bodies, and then passed to communities with autonomy as to how the asset will then be managed by the community.	Secretary of State for Business, Energy & Industrial Strategy
Further research to better understand how new smart demand and supply projects can effectively engage with poverty and fuel poverty, and work to build community capacity in low-income areas.	Department for Business, Energy & Industrial Strategy; Energy agencies; Universities
Greater role of local authorities in seed funding projects – in the form of staff time and revolving low-cost loans.	Local authorities & community energy sector
Community energy groups to approach and discuss cross over working with credit unions (e.g. zero interest loans for buying energy efficient goods).	Credit Unions & community energy groups
Where community benefit funds already exist, encourage fund managers to allow these funds to be invested in broader community goals (not just low carbon initiatives).	Community energy sector
Develop models of post-subsidy community energy renewable projects that work.	Community energy sector

3. Conclusions

The collected views of interviewees and roundtable event participants showed that community energy projects in low-income areas seldom emerge directly from the grassroots – groups of individual residents coming together to build a project based on shared concerns. Instead, intermediary organisations, often very locally based and with a broad community development focus, provide the catalyst for energy activity across the wider community. Bringing the potential benefits of community energy activity to the wide range of community development and regeneration charities already in existence should therefore be a key aim if community energy is to become more mainstream.

To engage such intermediaries, and the communities they serve, the stories of existing community energy activity need to clearly demonstrate a broad range of benefits – for example, improvements in health and the local environment, and building of local economic resilience and communities’ social capital.

Local, sub-regional and national government also have a part to play. Local authorities can clearly stimulate and support community energy activity through the provision of in-kind support and staff time, even where grants and loans are not available. Newly formed city regions, combined authorities and devolved administrations, many of whom are developing long-term energy strategies, need to be engaged and persuaded of the benefits of community-led action on saving and generating energy if their carbon reduction targets are to be equitably delivered, or indeed, achievable at all. Joined-up and collaborative approaches between these administrations, and community organisations and funding bodies will be critical to this engagement. Government departments with a remit for both energy and communities can and should be promoting the benefits of community-based activities that lead to greater resilience and reduced carbon emissions. But policy uncertainty and a lack of joined-up thinking between government departments has undermined trust in the idea that community-based energy activity is seen as desirable by government. Such trust can only be regained by creating, and maintaining, clear policy positions and inter-departmental collaboration, and ensuring that the benefits are seen to be available to all communities, and not just the most capable. It is also clear that with all key stakeholders being increasingly resource constrained, the importance of a more joined-up and collaborative approach grows.

Summary of report recommendations

The table below provides a summary of the recommendations made in the four sections of this report, covering: stakeholders; capacity building; policy; and funding. The recommendations are re-organised according to whether they are short, medium or long-term. Short-term recommendations are those that can be acted on immediately, but where these are considered ongoing this is noted.

Recommendations		Central government	Local authorities	Community energy sector	Community development & regeneration sector	Energy agencies
Short term	Letter from secretary of state to all council leaders and chief executives encouraging engagement with community energy.	✓				
	Produce a guide for municipal-community energy working, with diverse examples of successful initiatives, to include: projects with local authority assets (& those transferred into community ownership); local authority-delivered grant & loan schemes; projects seed funded by local authorities. The community energy sector can use this as a resource for engaging local authorities.		✓	✓ Lead		✓ Lead
	Produce a guide for private sector-community energy working, with diverse examples of successful initiatives. Should include engagement with Local Enterprise Partnerships. The community energy sector can use this as a resource for engaging businesses.			✓		✓
	Engage with the community development sector (local-level <i>and</i> umbrella organisations) on the opportunities in community energy to address social and health objectives. [<i>ongoing</i>]			✓ Lead	✓	✓ Lead
	Further engagement with a diversity of funders regarding the opportunities in community energy to address health, social & economic issues. [<i>ongoing</i>]			✓		✓
	Build local political support for community energy by engaging and inspiring local politicians (including those representing new spatial government entities – mayors & city regions). [<i>ongoing</i>]		✓	✓ Lead		✓
Medium term	Build an evidence base of the potential of community energy in low-income areas to strengthen local resilience (ongoing economic, environmental, health & social), & communicate this to local authorities.		✓	✓ Lead		✓ Lead
	Local and national government grant and loan schemes to support community-based energy activities in low-income areas.	✓	✓			
	A community energy innovation fund, with emphasis placed on projects in low-income areas.	✓				
	Further support for peer mentoring programmes that can provide consistent and long-term support, with a dedicated stream of support relating to working in low-income communities.	✓ Lead	✓	✓		✓
Long-term	Support for the establishment of local energy agencies in areas not currently supported by one.	✓ Lead	✓	✓		✓
	More support in low-income communities for models, like Gen Community, where community energy assets are developed by professional bodies, and then passed into community ownership.	✓ Lead	✓	✓		✓

Appendix I: Roundtable attendees

Attended	
Mark Pepper	Ambition Lawrence Weston
Dan McCallum	Awel Aman Tawe
Andy Heald	Gen Community
Paul Hewitson	HartlePower
Afsheen Rashid	Repowering London
Gordon Cowtan	Fintry Development Trust
Sam Kennedy	Department for Business, Energy & Industrial Strategy
Jeff Hardy	Grantham Institute, Imperial College
Emma Bridge	Community Energy England
Elizabeth Corrado	Power to Change
Julia Plinston	Community Action Northumberland
Phil Beardmore	Localise West Midlands
Christine Smith	Blackpool City Council
Tom Birtwistle	Flyde Borough Council
Alan Simpson	MOZES
John Wilkinson	Locality
Karen Holdsworth-Cannon	Surrey Community Action
Richard Evans	Scotswood Sustainable Energy
Harriet Sansom	Centre for Sustainable Energy
Rachel Coxcoon	Centre for Sustainable Energy
Jenny Coles	Centre for Sustainable Energy
Invited but unable to attend	
Zoe Guijarro	Citizens Advice
Jenny Rouse	Centre for Local Economic Strategies
Jess Britton	Exeter University Igov Programme
James Kirkup	Social Market Foundation