



centre for  
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energy

# Enabling Community Energy in the North East of England: Tackling the Climate Emergency

## EXECUTIVE SUMMARY

Study by the Centre for Sustainable Energy for  
the North East Local Enterprise Partnership,  
North of Tyne Combined Authority, Durham County  
Council and South Tyneside Council



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The North East Community Energy Study was written by the Centre for Sustainable Energy and commissioned by the North East Local Enterprise Partnership, North of Tyne Combined Authority, Durham County Council and South Tyneside Council.

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# Executive Summary

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This report provides in-depth insights into the structure, mechanisms, models and support that would enable the successful development and delivery of community energy projects in the North East Local Enterprise Partnerships (LEP) area.

## Introduction

The reduction in CO<sub>2</sub> emissions in the North East from 14MtCO<sub>2</sub> in 2005 to 7.5MtCO<sub>2</sub> in 2020 has mostly been driven by the decarbonisation of the electricity grid and closure of energy intensive industry. Few of these developments have required significant levels of change and investment at a regional, local and individual level. The Climate Change Committee states that more than half of the emissions cuts needed to reach net zero rely on people and businesses taking up low-carbon solutions. This will require individuals, communities, and businesses to think differently about how they heat their buildings, power their transport and generate their power. Community energy offers a solution to this by putting people at the centre of the journey to net zero.

Community energy groups are well established across the UK and are involved in regional and local projects to generate renewable energy, retrofit energy inefficient homes, share electric vehicles and provide advice to those in fuel poverty. What all of the projects have in common is an emphasis on local leadership and control, with the local community engaged in and gaining advantage from the project. Benefits like addressing poverty, improving draughty and damp homes, reducing energy bills, improving local buildings, bringing people

together, raising income for local facilities, generating jobs and – crucially – making it possible for ‘ordinary people’ to play a more active role in creating an equitable and low carbon society.

## The North East context

The North East region (including Tees Valley) currently has the lowest concentration of community energy projects in Great Britain. Community Energy England’s State of the Sector Report (2020) suggests that out of a total of 300 community energy organisations in GB in 2019, just four were in the North East.

There are no projects in the region that have issued a community share offering. There have been however a number of community organisations involved in energy initiatives across the North East from community buildings installing solar panels to a community working with a local landowner to install a wind turbine. The number of enquiries to the Rural Community Energy Fund and subsequent applications highlighted the desire to develop energy related projects and evidenced a grassroots network in the North East. There were 86 enquiries to the fund and 17 projects were funded across Northumberland and Gateshead.

## ‘Energise your community’ survey and focus groups

There were 75 responses to the community energy survey ‘Energise your community’ between December 2020 and January 2021. Forty-three respondents stated that they had experience of community energy and 32 reported that they had no prior experience

but were interested in pursuing community energy projects. Thirty-two responses came from individuals and 43 from organisations. This included 36 social enterprises or charities, seven town and parish councils and two local businesses. Responses came from across all seven of the North East local authorities. The response rate and subsequent engagement of volunteers through three focus groups suggests that the motivation, support and interest of the VCSE (voluntary, community and social enterprise) sector in community energy represents a key opportunity for the region in tackling the climate emergency.

The most important community energy outcome for the VCSE sector in the North East is 'Tackling the climate emergency'. The majority of community organisations that responded to the survey described community energy as either an 'enabler' (35%) or 'key' to delivering their goals. Community energy tends to be one among many objectives for North East VCSE organisations with community development being the most selected objective.

There is a widespread interest in community energy among many organisations in the region with a range of different community

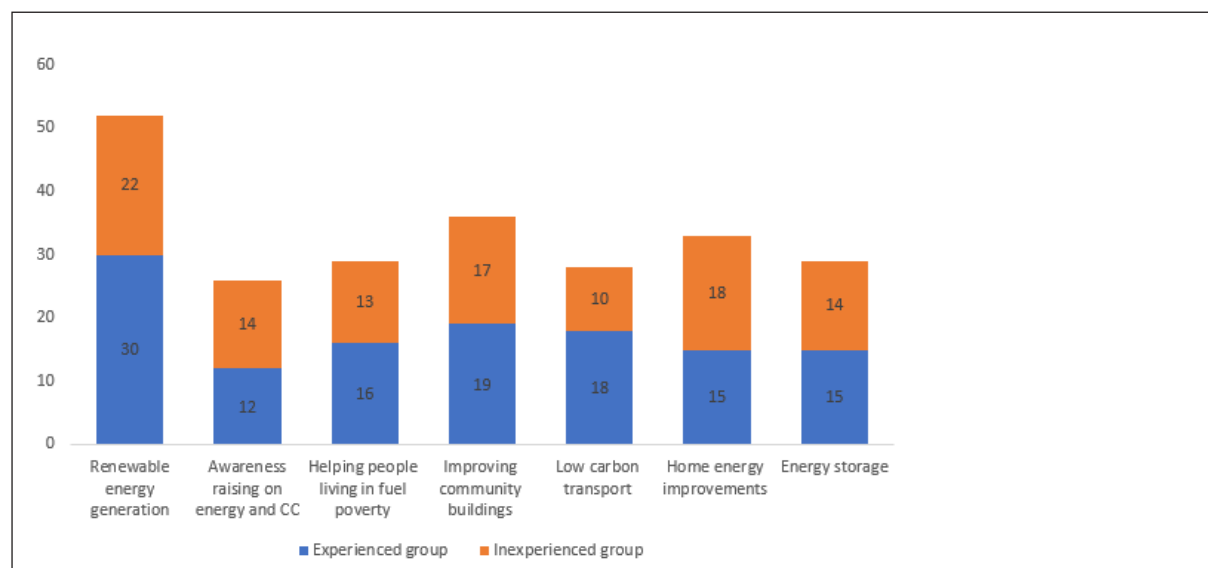
energy activities underway driven by a number of individuals and organisations with experience of community energy. But there are not as many community organisations dedicated solely or primarily to community energy initiatives as there are in other parts of the UK. Many responses to the survey were from individuals or from small organisations with relatively limited staff and capacity.

There is a 'critical mass' of VCSE sector organisations in the North East who are highly motivated to take forward community energy initiatives as part of their broader community development, environmental and sustainable development agendas.

But a one-size-fits-all approach to providing support is unlikely to succeed given the diversity of these organisations and range of priorities identified. That said, VCSE actors could benefit significantly from support and leadership that enables them to work together collectively at a regional scale.

A list of community energy organisations and projects identified in the North East are provided in the Annex I of the report.

### VCSE Sector priorities for Community Energy in the North East





To date, community energy business models have primarily been built around a generation asset.

### Business models

To date, community energy business models have been built primarily around a generation asset, such as a wind turbine or a solar farm, and supported by the feed-in tariff. With the removal of the feed-in tariff new business models are being pioneered. The report highlights 15 community project examples, identified on the basis on their immediate-term viability, decarbonisation priorities in the North East and the priorities identified by the VCSE sector. Key themes include, renewable energy generation, low carbon transport, homes energy improvements (including heat), and energy system innovation.

The models and projects highlighted are representative of one of the following types of models:

### Scale models

These are based on cooperation and collaboration between communities and tend to use a cooperative form of governance rather than a community benefit society model. They typically address issues such a lack of EV charge points or solutions such as EV car clubs or roof-top solar PV for homes and schools. They have a pooled or centralised delivery hub which enables multiple communities to draw on knowledge and skills in diverse commercial and professional areas of the energy market, and so reduce the investment required by each individual community. Examples of these models include: Solar Streets, Big Solar co-op, Co-Wheels, Charge My Street and Retrofit Works.

### Niche models

Niche models of community energy are by their nature bespoke solutions tailored to a

particular community, and typically found in groups run as a Community Benefit Society. This model may be better in terms of mixing different technologies, drawing on all local resources and placing ownership and control at a community level, but they also take more work and expertise to develop. And since the withdrawal of the feed-in-tariff they have become more challenging. They will generally require more investment in feasibility and business development and be less immediately replicable. These models could include Riding Sunbeams, though are generally more typical projects supported through RCEF (see section 5 for examples).

### **Innovation projects**

These models are principally about exploring, modelling and demonstrating what a future local energy system could look like and the social, financial and system benefits of greater local and community engagement. Examples include Project Leo, and Bath & West Community Energy's Flex Community.

There are a number of existing models and new opportunities for local and community energy in the North East. The removal of the feed-in tariff means many business models are unlikely to provide a community benefit fund and new models are focused on markets and technologies that are currently immature and less developed though have the potential to grow. There is a large range of business models that correspond to the needs of decarbonisation in the North East and the VCSE sector's priorities.

### **Skills and capacity**

Of the 75 respondents to the VCSE survey, over half had experience of community energy, mostly around awareness raising and education, and improving community buildings. Support is likely to be required in the areas of low carbon transport, home energy improvements, tackling fuel poverty, energy storage and the development of

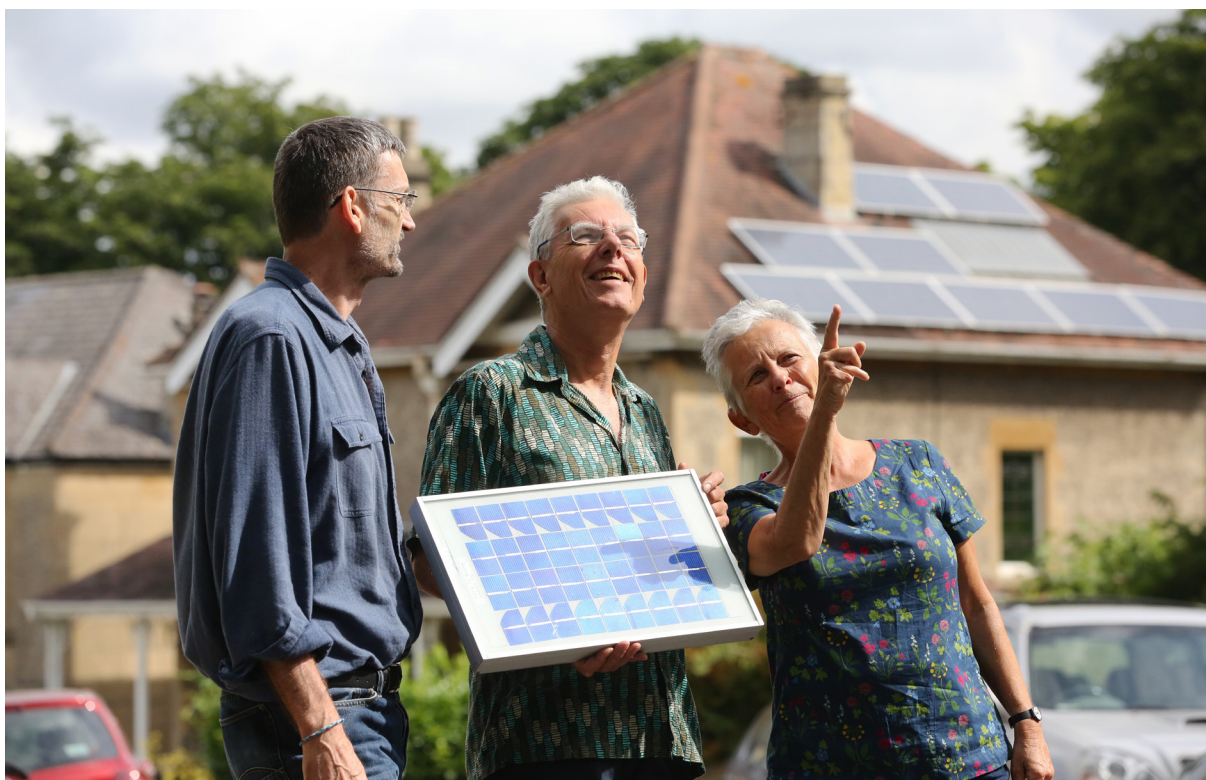
community owned assets and opportunities. Positives for community energy in the North East include the confidence of the VCSE sector to engage communities and deliver local projects and the abundance of confidence in running social enterprise organisations, understanding fuel poverty and in delivering local services. The VCSE sector is least confident in its knowledge of the evolving energy system, in its actual experience of working with people in fuel poverty, its knowledge about specific energy technologies and its experience of navigating the planning system.

So, in order for VCSE sector organisations to bring to bear their motivation and their capacity to engage communities, lead and deliver local projects and services, they need support. This is required at the early stages of a community project development process in order to identify and translate local priorities and opportunities into high-potential projects. This support could be accessed via local knowledge and research centres such as the universities, energy specialists and consultants in the region such as D3 Associates and Narec Distributed Energy. Or, by partnering with other communities across the UK through 'scale models' and accessing resources collated by national organisations.

### **Legal, policy and regulatory context**

The potential of community energy has been recognised at the national level on a number of occasions in recent years. However, despite the pressing and ever-growing ambition for achieving net-zero, actual support has waned.

The community energy sector, with a dominant model based on energy generation, has been negatively affected by wider change across the energy sector including removal of the feed-in and export tariffs, the loss of tax relief, business rates on rooftop solar, the raising of VAT from



Today community energy groups are developing local demand-management options including the greater take up of battery storage and solar PV.

5% to 20% on solar panels, batteries and energy saving measures and planning constraints applied to onshore wind. The national policy context is dynamic and there are opportunities around the Local Electricity Bill, grid connection charging process and the spending review. Policy needs to be influenced, rather than depended upon, when it comes to community energy.

At a regional level all seven local authorities have declared a climate emergency yet reference to community energy and action is, on the whole, limited. As regional plans and strategies become clearer about the delivery pathways for achieving their climate goals there is scope to ensure that community energy is better integrated and specified. This is unlikely to happen without a better organised and more coherent community energy sector.

### **Investment and support mechanisms**

The VCSE sector has some, but not all, of the capacities they need to successfully develop and deliver community energy projects. In particular, VCSE actors need access to the skills and capacities that will enable them to identify and prioritise local needs and evolving opportunities. Where there are no ready-to-go applicable business models, and more work is required to innovate and explore specific opportunities, the VCSE sector needs access to feasibility and business development support.

The Rural Community Energy Fund (RCEF) is the main source of support for community energy projects in the North East at present. A dependency on RCEF has significantly shaped and limited the type of community energy activity taken forward in the region with a focus on renewable energy generation. It has also influenced the types

of organisations who can develop and deliver community energy projects.

From setting up partnerships and development networks, to helping to facilitate the creation of community energy organisations, through to capacity building, leasing of roofs, funding, supporting, financing and installing, there are many proven ways local authorities and regional actors can support and catalyse the development of community energy, and many advantages to be gained from doing so.

The reports provides five good practice case study examples of initiatives related to planning, procurement and investment and support being led by other English regional, local and combined authorities to enable community energy.

## Conclusions and recommendations

The findings of the study suggest that:

1. The VCSE sector in the North East is highly motivated.
2. There are locally responsive and applicable business models available to the region and opportunities for development and innovation.
3. The VCSE sector has access to some of the capacities required but need support to build and access further skills, knowledge and abilities.
4. The regional and national legal, policy and regulatory context is not as supportive as it could be.
5. VCSE actors do not have access to the levels or types of investment and support mechanisms they require.

Outlined below are four potential goals for a thriving and successful community energy sector in the North East.

### Potential Goal #1

By mid-2023 all regional leaders view community energy as integral to addressing the climate emergency and, as they are reviewed and updated specific targets and resource allocations are integrated into the delivery for net-zero outlined in key local plans and policies.

### Potential Goal #2

By mid-2023, 50-250 VCSE, academic and research organisations are working together collectively, along with local authorities, combined authorities, the LEP and Northern Powergrid in the North East region to develop and deliver impactful community energy initiatives.

### Potential Goal #3

Between 2022 and 2025 a minimum of 50-100 communities will be supported to explore local needs and opportunities for community-based energy projects that reduce carbon emission, deliver local benefits and address challenges of fuel poverty and social exclusion.

### Potential Goal #4

By 2023, there are 25-50 new community energy projects underway covering a range of different domains, in rural and urban areas, and led by and benefitting people from all walks of life.