



**electricity**  
north west

Bringing energy to your door

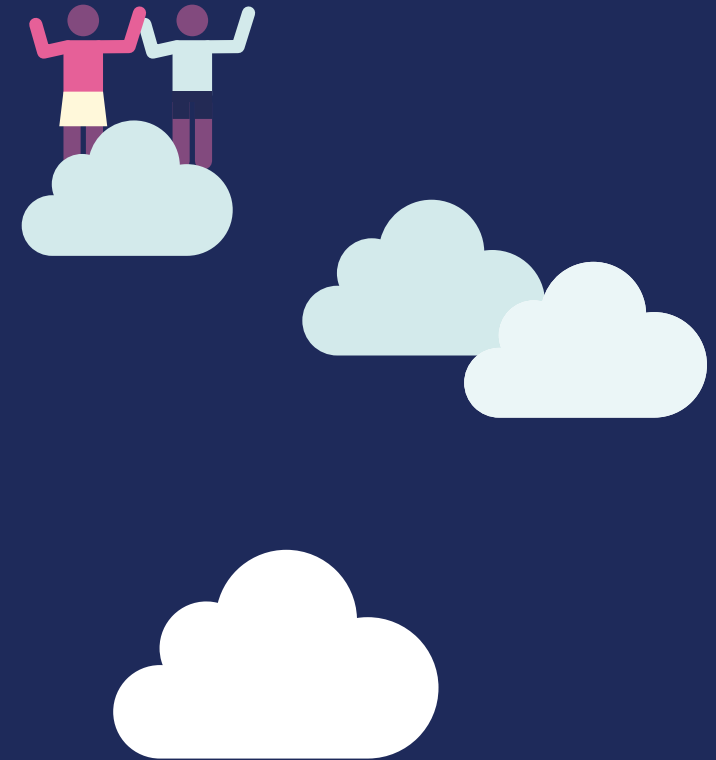


# State of the sector report

August 2022

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# 1. About this report

This report is the fourth in-depth analysis of community energy across the North West and focuses on the progress made by the community energy sector in 2021. An understanding of how the sector is progressing is crucial to provide better support to, and collaborate with, community energy organisations to enable them to play a full role in the drive toward net zero.

The research was conducted as part of the annual Community Energy State of the Sector UK research project. It includes survey data from 22 community energy organisations based across the Electricity North West licence area, gathered between Feb – March 2022, as well as data gathered from a further 15 organisations via previous State of the Sector surveys and desk-based research.

## The survey focussed on:

- Community energy activities throughout 2021
- Community motivations and challenges in 2021
- The value of community energy
- Funding and investment
- The future of the community energy sector into 2022 and beyond



## Community Energy in the North West

The community energy sector has provided significant benefits through projects which harness decentralised energy resources and deliver local energy services. Recent changes to the support landscape have created challenges for established models of community energy generation and the response across the UK has seen a shift toward new technologies such as smart energy management, battery storage and low carbon transport, as well as an increased focus on energy efficiency services.

“

Community energy organisations play a vital role in driving the net zero transition because they are embedded within and trusted by their communities which allows them to understand and engage more effectively with local people and deliver a wide range of environmental, economic and social benefits. ”



## 2. Foreword

“ I would like to thank the community energy organisations that took the time to respond to this survey; this report would not be possible without their support. I would also like to thank, Community Energy England, Scotland and Wales for their hard work to carry-out the research and producing the report. ”



This report gives us vital intelligence and insight into the community energy sector in our region which is an invaluable source of information. It informs the on going development of the services and support we offer to the community and local energy sector in our region and provides a vital input into shaping our offer.

Supporting communities to take action on climate change is a key part of our commitment to lead the North West to Net Zero carbon. As the Distribution Network Operator (DNO) for the region we understand we play a pivotal role in making sure the network infrastructure enables the region to decarbonise and meet the required net-zero targets.

I hope you find this document as useful and informative as we do, and I encourage you to share any feedback you have with us.

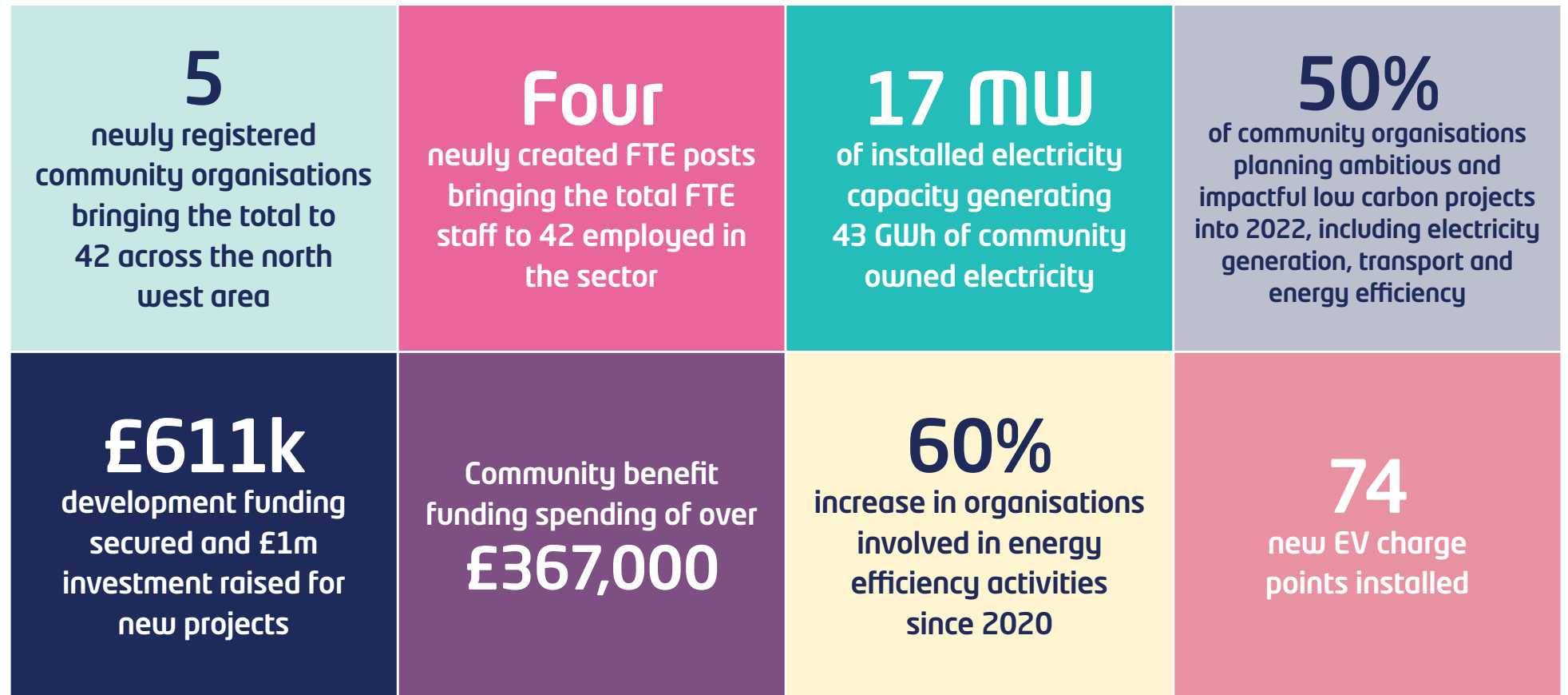
**Steve Cox**  
Director of Distribution System Operations



# 3. Headlines

The community energy sector in the North West is becoming increasingly diverse in the range of activities it delivers. Following broader trends across the UK, electricity capacity has increased as has the number of organisations delivering low carbon transport and energy efficiency activities.

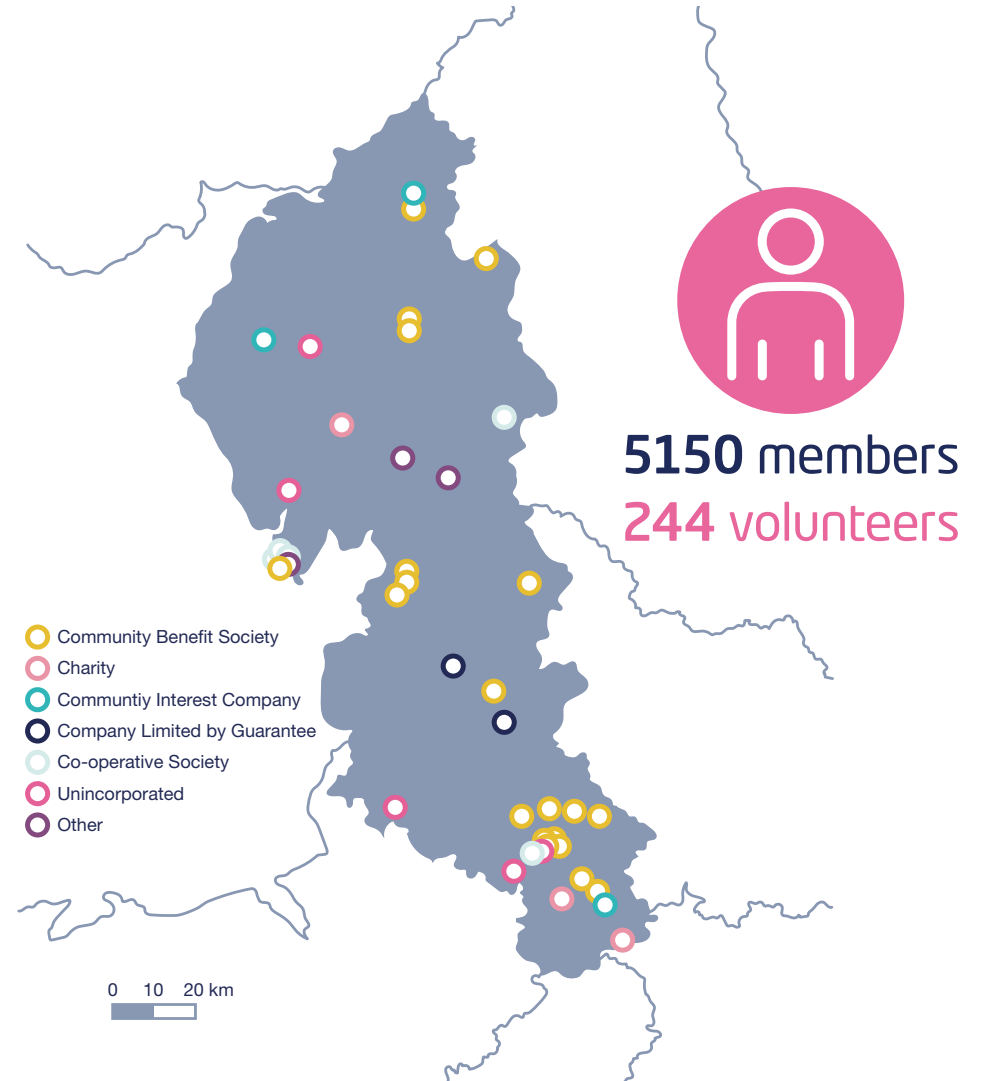
In 2021:



# 4.

## Community energy in the North West

In 2021, 42 organisations in the North West were found to be involved in community energy projects. Nearly three quarters of these (72%) are registered as Community Benefit Societies (BenComs), Cooperatives or Community Interest Companies, which is significantly higher than the UK average of 57%, and beaten only by one other distribution network operator. This indicates that community benefit and energy democracy are, to a greater extent, key drivers of how they operate and deliver their services. The remaining are made up primarily of unincorporated community groups engaged in energy activities.



42 full-time equivalent staff were reported to be employed in the sector, the majority of which are employed by two larger organisations, Carbon Co-op and Energy4All. The other 35 organisations employed only 10 FTEs between them with around 77% of these relying entirely on volunteer and member support to carry out their activities. This broadly reflects the wider UK experience of the sector, which is predominantly characterised by numerous, small, volunteer driven organisations with a smaller number of larger, better-resourced organisations employing paid staff.

40% of respondents stated that a lack of organizational capacity was a key barrier to their work and was also the most common reason for stalled projects. This is unsurprising as generation projects in particular can take many years to develop and paid staff are often employed on short-term contracts which makes it difficult to sustain project progress in the longer term.

In 2021, four new FTE posts were created and five new community energy organisations were registered, more than twice as many as 2020 and the highest number in five years. Four of these are entirely volunteer supported and the fifth, People Powered Retrofit was originally a Carbon co-op project and has now been established as an independent organisation. This is a positive sign that despite the challenges of developing projects, the value of community energy is appreciated and there is an increasing interest, desire and ambition locally to reap the benefits.



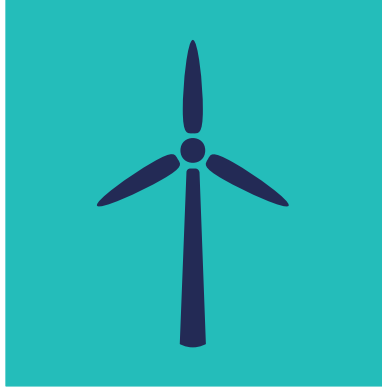
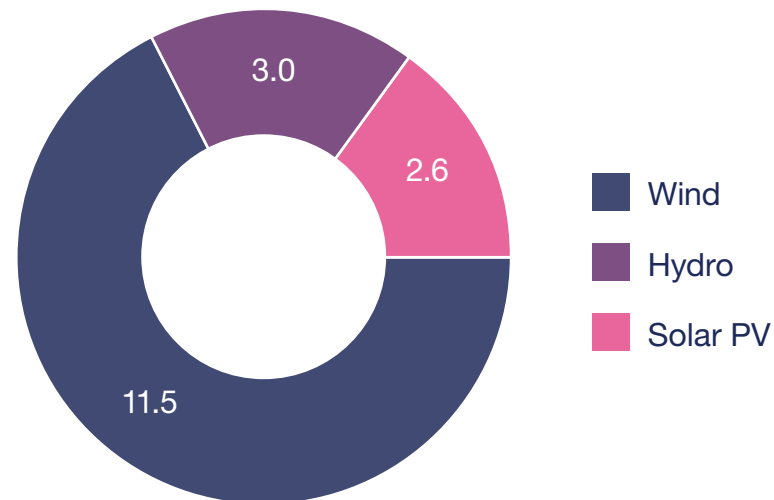


# 5. Energy generation

Twenty community organisations reported involvement in electricity generation projects in the North West. Burnside Community Energy were responsible for installing the only new electricity capacity in 2021 – a rooftop solar PV system with a capacity of 329 kW. This added capacity is an increase on 2020, which saw additional capacity of just 70 kW.

Wind is by far the dominant technology totalling 11.5 MW comprising the Harlock Hill wind farm (4.6 MW) and the Mean Moor wind farm (6.9 MW) both of which are owned by High Winds Energy Community Energy Society. This represents 10% of all installed wind capacity in the UK and 50% in England.

## Electricity Generation Capacity (MW)



A further 3 MW of hydro is present, the majority of which is accounted for by the 2.3 MW Ellergreen Hydro and 9 smaller <150 kW installations across the region, representing 25% of all installed hydro across the UK and 77% in England. The remaining capacity consists of 2.6 MW of solar PV, a third of which is owned by Burnside Community Energy. This brings the total electricity capacity in the region to 17 MW and represents a growth rate of 2%, which is broadly in line with the UK average rate for 2021.





**Generating 43 GWh of electricity**



**Saving 12,000 tCO<sub>2</sub>e annually**



**Powering 15,000 households**

Based on the installed capacity, the amount of electricity generated across the region in 2021 is estimated to be around 43 GWh, equivalent to the energy demand of 15,000 UK households (assuming Ofgem's annual average household usage of 2900 kWh), and providing carbon emission savings of 12,000 tonnes.

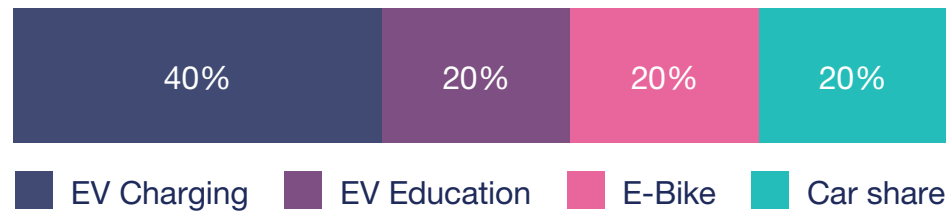
Heat generation is limited to one operational installation – a 22 kW solar thermal system supplying hot water to a community centre in Lancaster - owned by Morecambe Bay Community Renewables. The North West does not have unusually low deployment, across the UK in 2021 only 4.7MW of community-owned heat capacity was reported. Community-owned heat projects are not easy to develop at community scale due to their complexity and the need for large anchor heat loads to build a viable business case, and with the removal of the government's Renewable Heat Incentive, it is difficult to see how this will change in the near term.



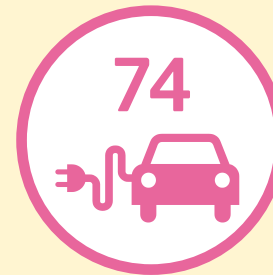
# 6. Low carbon transport

As with other DNO regions, organisations in the North West have continued to shift their focus away from renewable electricity generation and there was a small increase in the number of organisations reporting activity in low carbon transport projects in 2021. While charge point ownership forms the majority of activities, organisations also reported involvement in other activities such as car sharing, EV education and e-bikes.

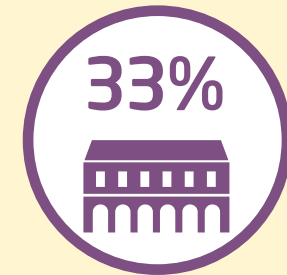
## Low Carbon Transport Projects



EV charging points can provide significant benefit to local areas by enabling local retention of investment and revenues. These benefits can be multiplied if the chargers are powered by a renewable energy asset such as solar PVs because operators can charge customers less. EV charge point installations increased by 138% on the previous year bringing the total to 109 across the region. In comparison with the other DNO regions, the north west has by far the most community-owned charge points per household i.e. over three times more than 2nd placed DNO and around 12 times more than the DNO with the fewest charge points.



**74**  
New EV  
charge points  
installed



**33%**  
More organisations  
involved in low carbon  
transport activities

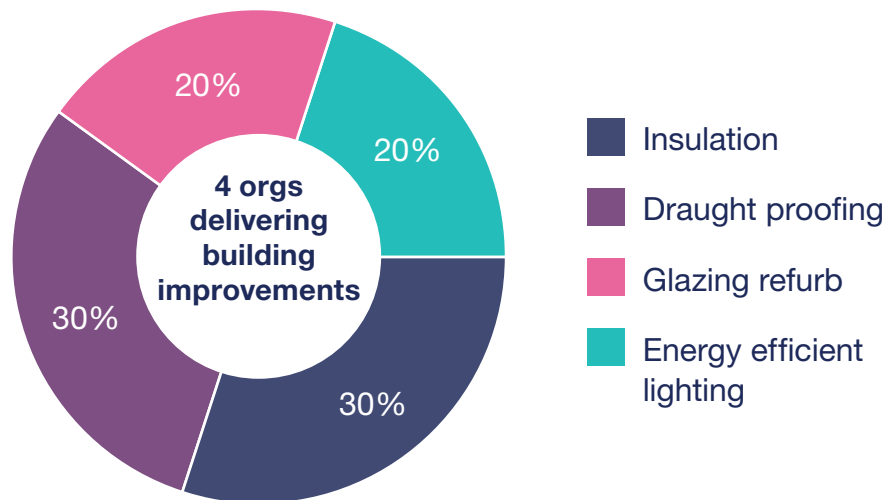
Despite this increase, the North West reports the fewest number of organisations involved with low carbon transport activities compared with other DNO regions and activities are dominated by a few larger organisations such as Charge My Street. Charge My Street were responsible for the vast majority of EV charge point installations in 2021 and are rapidly expanding their network in the region.



# 7. Energy efficiency

In 2021, eight organisations were delivering services in areas such as building improvement, and advice and education – an increase of 60% on 2020. This shift toward energy efficiency activity was observed across the UK perhaps because this is an area where groups with more limited resources can make a significant impact.

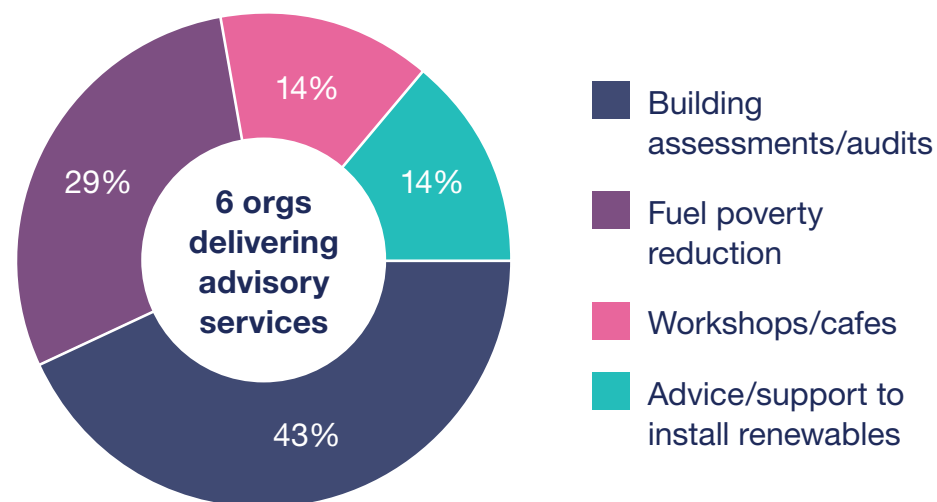
Building improvements included the installation of insulation, draught proofing and energy efficient lighting, while advisory and education services concentrated on improving community understanding of energy usage, energy losses in buildings and encouraging behavioural change.



Six community organisations in the North West offered services such as energy auditing, building assessments and advice on the suitability of installing renewable energy technologies. Burnside Community Energy started a new thermal imaging service in 2021 which sits alongside an existing free thermal imaging service offered by Ambleside Action for a Future. In total, 170 local people were reported to have received energy efficiency advisory services or training.



The majority of organisations provided services free of charge with only two operating a concurrent paid model for able to pay customers. Free services largely involved low cost interventions such as advisory and signposting services delivered via workshops, cafes, community events and telephone consultations, as well as simple improvement services such as LED lighting installation. Paid services were focused on more costly building improvements such as insulation and glazing installations.



8  
organisations  
delivering energy  
efficiency activities



£3000  
spent providing  
advisory services  
to 173 recipients



## CASE STUDY: People Powered Retrofit

People Powered Retrofit is a new Community Benefit Society that formed in 2021, having started out as an innovate pilot project run by Carbon Co-op. They provide a not-for-profit service to able-to-pay householders in Greater Manchester. Their one stop shop model offers independent advice and support to help plan, procure and deliver whole house retrofit projects to a high standard. In the next 5 years, they aim to work with 1,150 households, making them more energy-efficient and saving 2,700 tonnes of CO<sub>2</sub>. They also plan to expand their training programme with the aim of retraining 3,500 local contractors.



## 8. Funding and finance

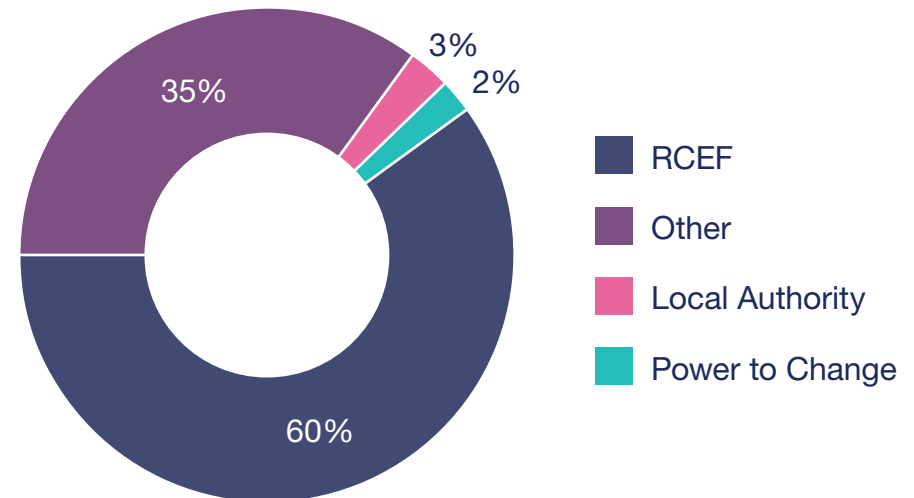
Across the UK, a lack of early stage funding was highlighted by groups as a key barrier to progressing their energy plans and this was true also of organisations in the North West where only 40% of respondents reported securing development funding in 2021. Furthermore, of this 40%, more than half were established, constituted organisations with paid staff and therefore more capacity to dedicate toward project development.

The highest proportion of development funding across England in 2021 came from the Rural Community Energy Fund (RCEF). This was also the case in the ENWL licence area, where communities accessed a total of £611,000 to develop energy projects, with £370,000 being awarded by the RCEF. This is a significantly higher than the funds secured in 2019 (£265,000) and only a little lower than in 2020 (£750,000). This is an encouraging sign and no doubt reflective of the increased number of organisations active in the sector in recent years.

The largest RCEF award was secured by eQuality Homes - a not-for-profit organisation that develops affordable and sustainable housing - to explore a low carbon and renewable energy network at one of their housing developments in Kirkby Stephen. A further £245,000 of RCEF funding was secured by four organisations, with smaller amounts awarded by Power to Change and a local authority. This dependence on the RCEF highlight the importance of this type of support and is a cause for concern for future community energy project development, now that the RCEF has ended and no replacement scheme has been announced.



### Development Funding



Significant other funding (£200,000) was also secured by Charge My Street who expanded their charge point network even further in 2021 and have plans to scale up their network by working more closely with community energy projects and car clubs to increase impact.





**£611k** development funding secured



**£1m** project investment raised

Investment raised for community energy projects was also significantly higher than in 2019 (£147,500 raised) and 2020 (£350,000 raised) no doubt directly linked to the increased level of development funding. Three organisations raised just over £1m in investment all of which was raised via community share offers. People Powered Retrofit raised the largest amount, £730k, for their whole house retrofit service, and Burnside Community Energy raised £250k to fund the installation of rooftop solar PV arrays on a partner building. The remaining funds were raised by Charge My Street to expand their network of EV charge points in the region.



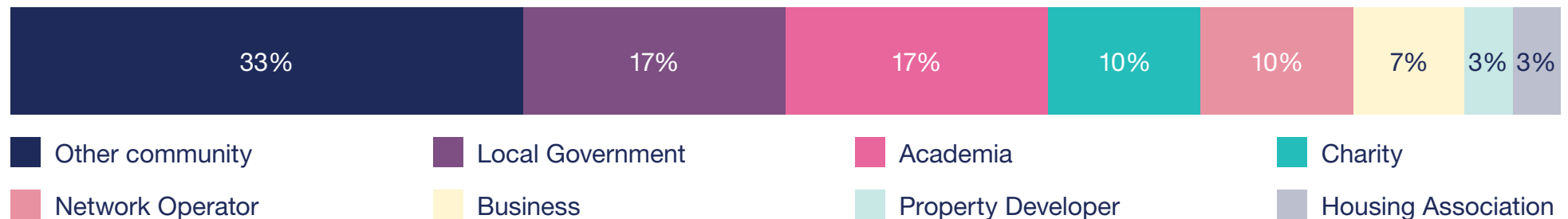
# 9. Networks & partnerships

Partnerships and networks can be significant factors of regional and local success in the community energy sector. Community energy organisations across the UK have consistently reported a lack of capacity as a key barrier to project development in the last few years and the North West region is no different. Partnerships approaches help to address some barriers by providing a means to share resources and knowledge, as well as providing access to suitable sites for energy development, which was identified as another key barrier by community groups in the North West.

Community organisations in the North West highlighted the importance of engagement and collaboration with key stakeholders in the sector, most notably with local authorities, other community groups and academia (including schools).



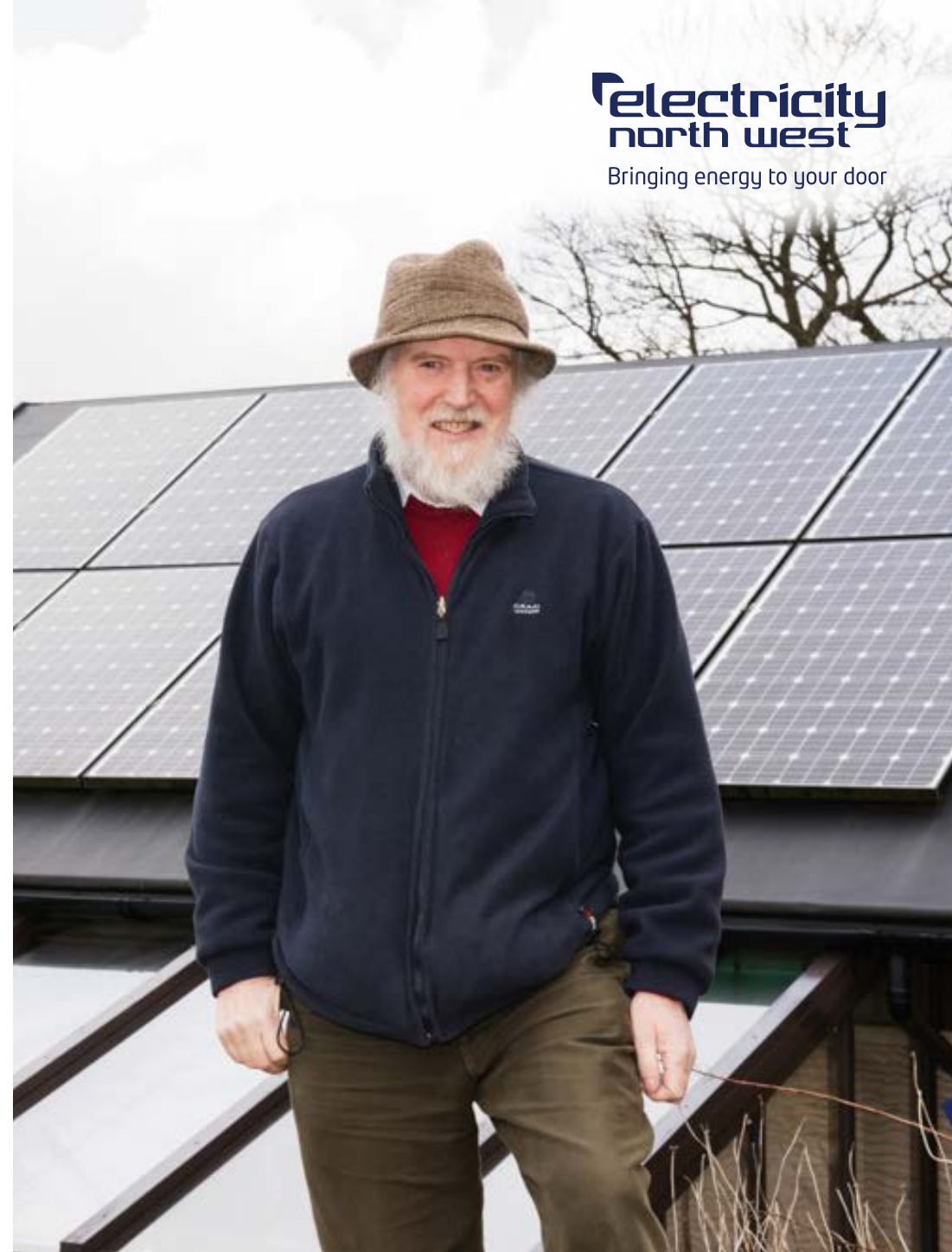
## Partnerships





In 2021, 14 organisations reported they were developing projects in partnership, with a range of partner types, most commonly other community energy organisations, local authorities and academia. 10 partnership projects were completed and seven are currently in progress. A further 13 are at an early stage of development and while no groups reported an active partnership with ENWL in 2021, three reported they were in discussion to help progress projects. There are mutual benefits for both, with ENWL able to provide technical expertise and help community groups navigate the complexities of securing a grid connection as well as being a valuable source of innovation funding. In return, ENWL benefit from the unique ability of community energy groups to enable behaviour change that can reduce overall energy demand and drive new innovative energy models, which can help them accommodate more low carbon technologies on their networks.

Community energy organisations also reported the types of support received from partners as well as how important the support was to their projects. Partnerships with DNOs were reported to be very important in terms of their technical and financial support, which may reflect the fact that ENWL have a long-standing commitment to engage and support the community energy sector as evidenced by their dedicated surgeries and ongoing community-focused 'Powering our Communities' fund. While no groups reported an active partnership with ENWL in 2021, ENWL did provide support to approximately 50 projects either through their Powering our Communities fund, direct connections advice or with support for a funding bid.

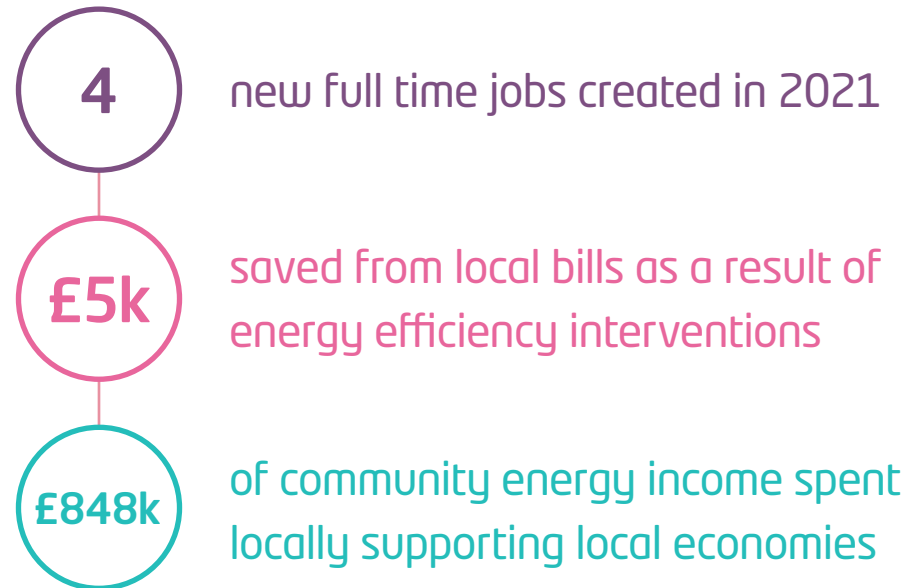


# 10. The impact of community energy

Community energy organisations are capable of delivering a wide range of economic, social and environmental benefits to their communities. Revenue from community energy projects are commonly delivered directly to communities via community benefit fund distributions, which can take the form of grants or loans.

In 2021, ten community energy organisations reported a total community benefit fund (CBF) value of £566,000 and distributed £367,000 to their communities. This is the second highest spend of all DNO regions and the highest spend as a proportion of CBF value. £300,000 of this was distributed by Energy Prospects to kickstart development and construction activity for local projects.

The most common community benefit fund spending priorities highlighted energy efficiency projects and increasing awareness of low carbon technologies, while others prioritised the promotion of sustainable travel and local food growing. Other indirect economic benefits that create value for the local economy are derived from local investment, income, and job creation.

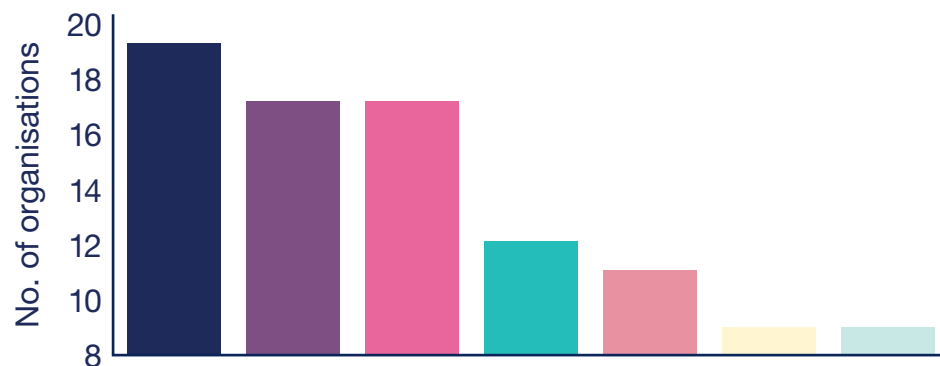


In terms of wider economic benefit, an average of 68% of community energy organisational expenditure was spent locally, which is in line with the UK average. This amounted to £848k being directly used to support local economies. The community energy sector also created four full time equivalent jobs bringing the total FTEs employed by community organisations to 42.




Approximately 86% of survey respondents reported developing local support as a core goal of their activities, with 77% citing CO2 reduction and building local capacity and skills around renewable energy technologies as areas where they are having an impact.

### Organisational Priorities



- Developing locals support for community energy
- Reducing CO2
- Building capacity & skills
- Alleviating fuel poverty
- Promoting local retention of community income
- Reducing unsustainable land use practices
- Promoting community ownership of assets/land



## CASE STUDY: Community Energy Cumbria

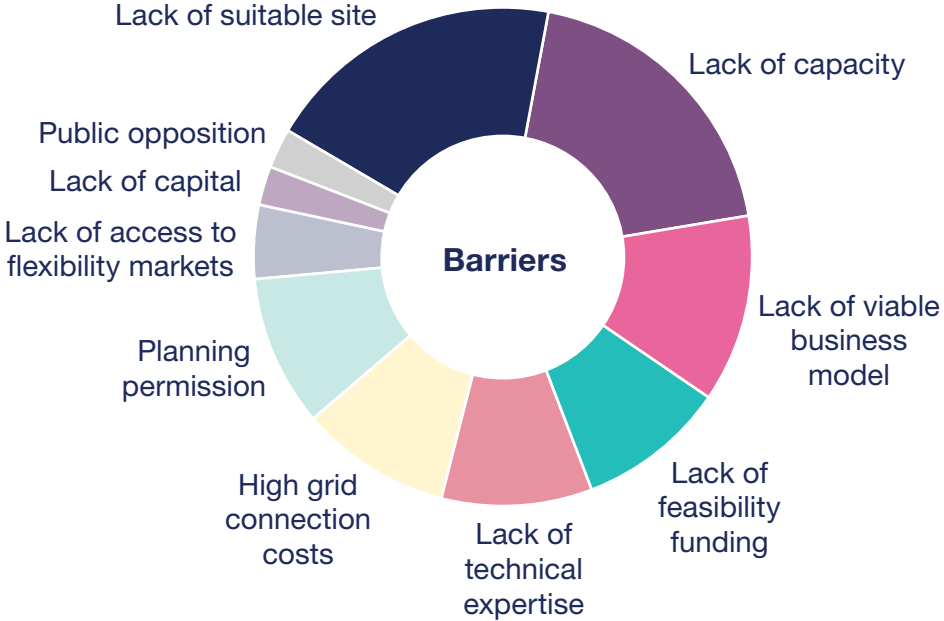
Community Energy Cumbria community benefit fund distributes income generated by their Killington based hydro scheme. One of their key aims is to ensure that a far greater proportion, if not all, of the expenditure and income from their renewable energy projects is retained locally to maximise impact in Cumbria. Local projects that are linked to energy saving or generation within 29 miles of their hydro scheme are prioritised for support. In 2021, they supported other local community energy projects by funding one local charity to carry out a detailed energy audit and thermal imaging assessment of their premises, and another to carry out a hydro feasibility study.

In terms of environmental impact, an estimated 12,000 tCO<sub>2</sub>e was saved as a result of the 43 GWh of electricity generated by the community energy sector in 2021 – enough to satisfy the energy demand of approximately 15,000 homes. Charge My Street estimate further savings of 214 tCO<sub>2</sub>e as a result of renewable electricity delivered to drivers last year. The true carbon savings are likely to be higher as this figure does not account for carbon savings from energy efficiency activities which are more difficult to quantify.

# 11.

## Overcoming barriers

Barriers to the community energy sector in the North West region are wide ranging but a lack of access to suitable sites for energy generation, and a lack of time and capacity were identified by more organisations. That being said, the north west reported the second lowest number of stalled projects across all DNO regions even when accounting for the lower number of active organisations in the region. Only five projects are currently on hold – four electricity generation with a combined potential capacity of 5 MW and one low carbon transport project.



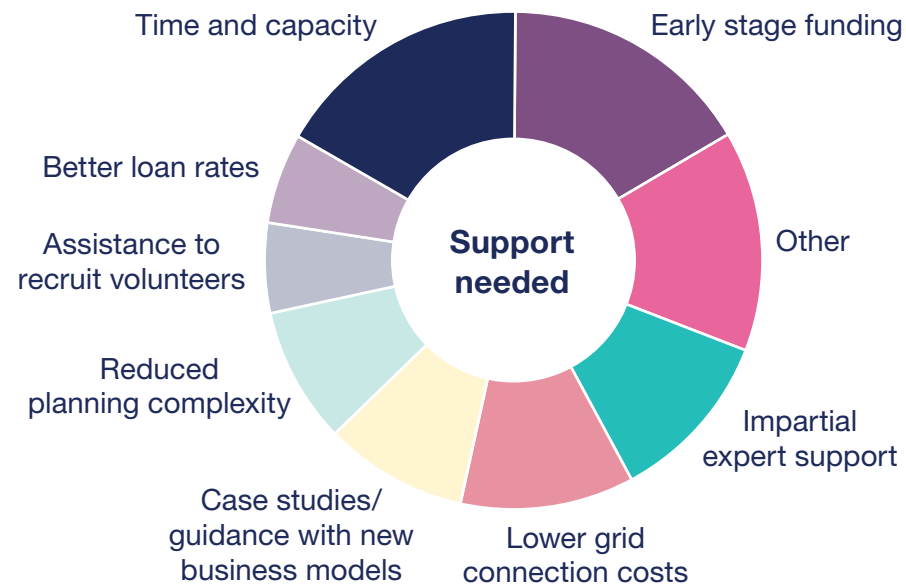
# 12.

## Supporting communities

The sector has struggled to develop and grow in the face of falling government support in recent years. The removal of the Feed-in Tariff in 2019, the Non-Domestic Renewable Heat Incentive in 2021 and the end of the RCEF in the same year have made an already difficult situation even more challenging.

Community organisations stated that early stage funding to carry out feasibility studies and core funding to employ staff on longer term contracts are key support mechanisms which would have a significant impact on their ability to deliver services to their communities. Greater capacity would enable them to develop relationships with partners who can bring expertise, wider networks and knowledge of new emerging business models, and allow more time to allocate to more complex projects in development. Knowledge sharing and collaboration are particularly important for generation projects which tend to be more complex, require more technical input and are increasingly only viable at scale in the current post-subsidy environment.

One organisation highlighted the need for “a real strategy from central government for getting to carbon net zero”, while another called for “a clear heat strategy with a requirement for community involvement”. A co-ordinated approach via the creation of a Community Energy Strategy could re-mobilise the sector and establishing a fair playing field for community- owned and led activities.



# 13.

## Looking toward the future

Many organisations highlighted frustration about the perceived lack of support for community energy at both national and local level and there was strong support for a clear, forward-thinking policy strategy to support the sector. Community energy organisations across the UK have shown their resilience and adaptability in recent years by diversifying into areas such as low carbon transport and energy efficiency in an effort to continue to have a positive impact in the face of a hostile policy environment. This drive and ambition is equally present in the North West with 50% of organisations reporting their intent to investigate new opportunities despite the uncertain support landscape.

Respondents remain ambitious in terms of their short and long-term future plans. The most popular project types focus on developing electricity generation particularly new solar PV on community, domestic and public buildings and hydro schemes. Charge My Street intend to increase their impact by working more closely with community energy groups and car clubs as they increase their EV charge point network.

### 27 Community energy projects planned in 2022



## CASE STUDY: Brompton 2 Zero

Brompton 2 Zero formed in 2021 with the aim of working with communities to promote sustainable practices, raise awareness of environmental issues and implement sustainable energy solutions. They are indicative of the high ambition of the sector moving forward as highlighted by their range of planned environmental and community energy projects including:

- Green hydrogen as a domestic and agricultural fuel source
- Working with townsfolk to increase biodiversity by encouraging wild gardens in homes;
- Working with local farmers to increase carbon sequestration by planting trees and developing wetland plus planting pollination and wildlife corridors to help biodiversity;
- Integrated solar PV, battery and EV charging systems on local commercial, domestic and community buildings including a car club and;
- The installation of retrofit measures and renewable heat technologies in rural homes.



# 14. Working with Electricity North West

Electricity North West's "Community and local energy strategy 2020-2023" sets out their commitment to engage and support community stakeholders and to further develop their understanding of the issues and barriers faced by the sector. Key commitments include:

- Active engagement with communities via dedicated surgeries to promote relevant service and opportunities e.g. connections and flexible services
- Support for community energy organisations in the region through an annual seed fund, 'Powering our Communities', which will continue through to 2022/23;
- Delivering 'Community Connects' workshops to help address issues the sector is facing relating to capacity and skills development;
- Developing web resources to improve accessibility of to services and to help community groups get their projects started;
- Publish a quarterly newsletter, guides and case studies to keep customers and stakeholders up to date with news that affect the sector and encourage shared learning.

“ The Electricity North West 'Powering our Communities' fund currently offers an annual £75,000 to support community energy projects and, as part of the Electricity North West RII0-ED2 business plan, this commitment will be extended with a proposal to increase the fund to £1.95m over 5 years. Alongside this, this business plan includes proposals for a delayed payment scheme for connection costs, and a free, dedicated support service to help guide community groups in the development of their projects, applications for funding and the connection of their projects to our network. ”





## Powering our Communities Fund

Since 2018 the Fund has committed a total of £304,000 across 25 projects. Each year the fund has an annual value of £75,000 with a maximum grant of £15,000 per applicant. The criteria of the fund are broad but projects need to meet one of the following:

- Helping communities to establish a group or develop the scope for a community energy project
- Scaling up delivery of a community or local energy project or group
- Addressing a specific barrier that is holding back the development of community or local energy.

If you are interested in learning more about Electricity North West’s work with communities or have an idea you would like to develop with us, visit:

 [www.enwl.co.uk/zero-carbon/community-and-local-energy](http://www.enwl.co.uk/zero-carbon/community-and-local-energy)

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Stockport, Cheshire, SK1 2JD**

 [communityandlocalenergy@enwl.co.uk](mailto:communityandlocalenergy@enwl.co.uk)

## Community Energy England

Community Energy England is the voice of the community energy sector in England, helping to create a supportive policy landscape for community energy. We also help active community energy organisations to connect, collaborate, share expertise and overcome obstacles. Join us to show your commitment to the sector and strengthen our collective voice.

Contact us for more information@

 [033 3303 4126](tel:03333034126)

 [info@communityenergyengland.org](mailto:info@communityenergyengland.org)

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Bringing energy to your door

## **Electricity North West Limited**

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