



**electricity**  
north west

Bringing energy to your door

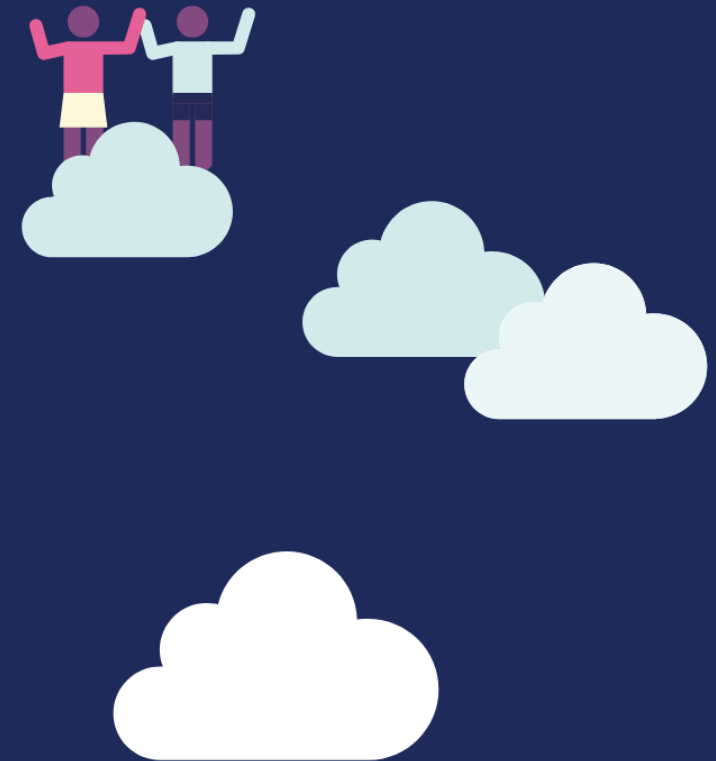


# State of the sector report

Community Energy in the North West of England  
September 2024

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# 1. About this report

This report is the fifth in-depth analysis of community energy across the North West and focuses on the progress made by the community energy sector in 2022 and 2023. Electricity North West supports this annual survey to gain insight into the current state of the community energy sector in the North West region and enables us to better support and collaborate with community energy organisations to make sure they 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 16 community energy organisations based across the Electricity North West license area, gathered between April and June 2024, as well as data gathered from a further 32 organisations via previous State of the Sector surveys and desk-based research.

## The survey focussed on:

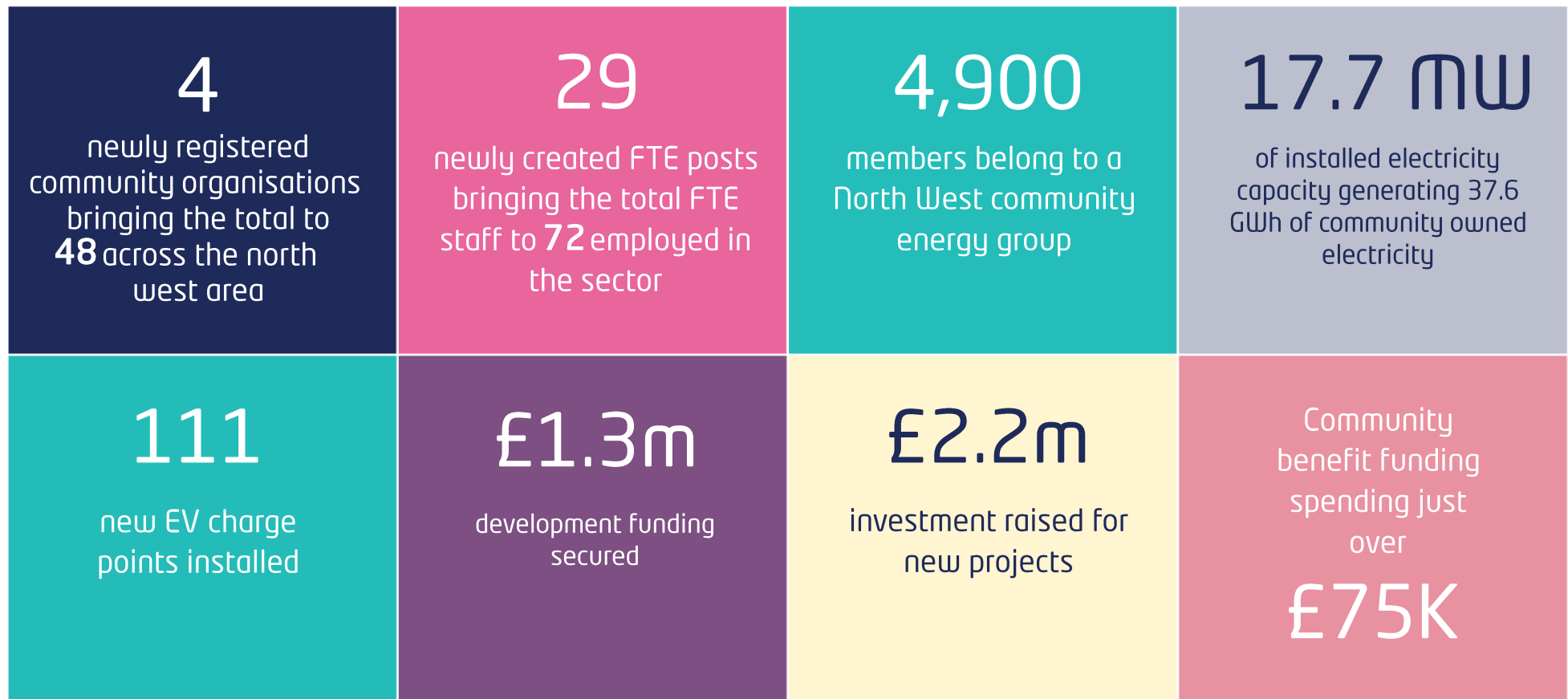
- Community energy activities throughout 2022 and 2023
- Community motivations and challenges in 2022 and 2023
- The value of community energy
- Funding and investment
- The future of the community energy sector into 2024 and beyond



## 2. 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 2022 to 2023:**



# Community energy in the North West

In recent years, the community energy sector has seen a shift away from the traditional focus on renewable energy generation toward a more diverse range of activities including low carbon transport and energy efficiency projects. These broader trends are mirrored in the Northwest which has seen more limited increases in renewable generating capacity over the past two years but an increase in the number of low carbon EV transport infrastructure with organisation continuing the rollout of E.V charge point installations and expansion of EV fleet sizes.

By the end of 2023, 48 organisations in the North West region were found to be delivering community energy projects, an increase of 6 since 2021. Of these, 62% are registered as Community Benefit Societies, Community Interest Companies or Co-operatives, which is higher than the UK average of 53% and higher than most other distribution network operators.

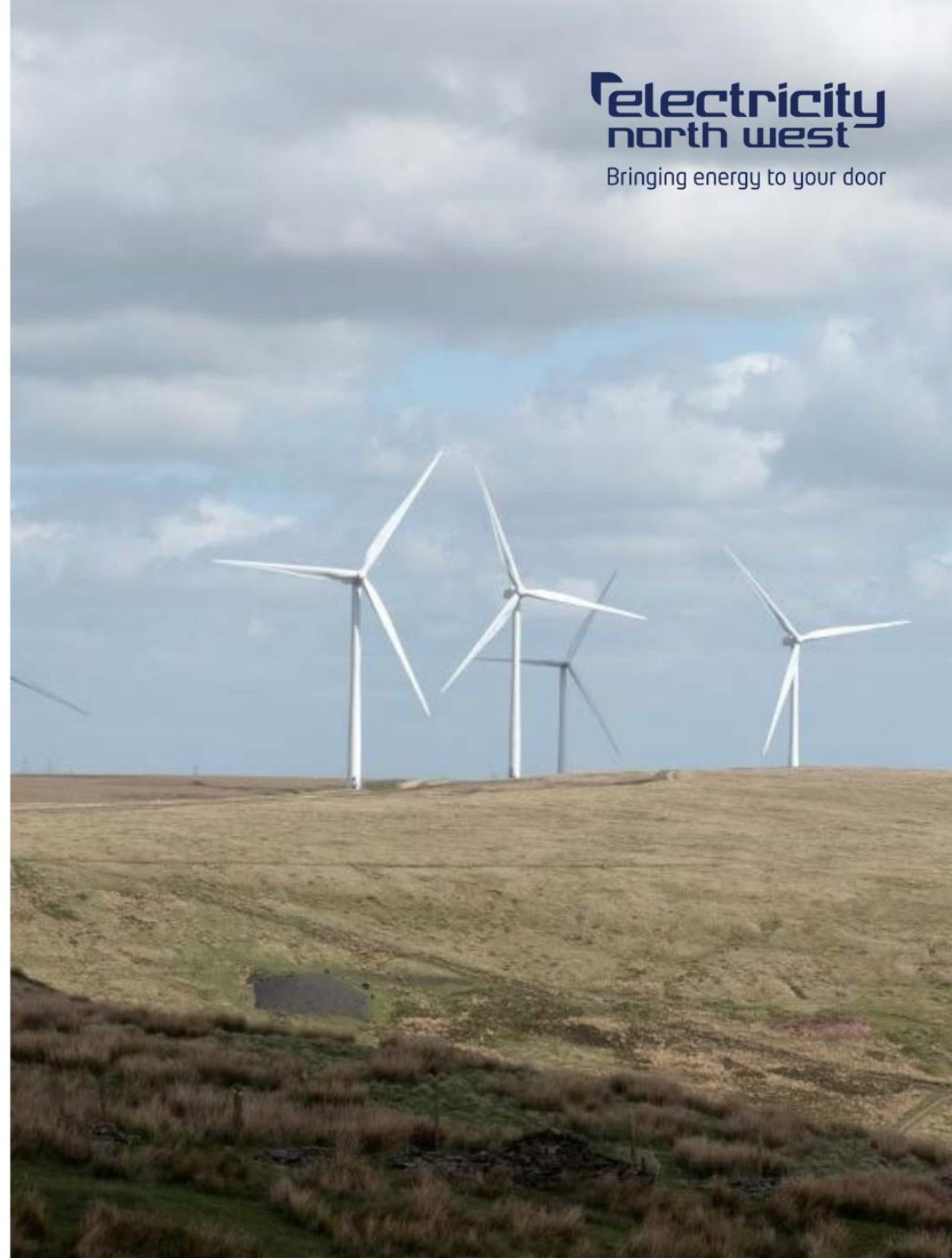
The community energy sector has historically been reliant on the passion and dedication of its volunteers and members to ensure the successful delivery of projects and the North West is no exception with 292 volunteers bringing a range of skills and knowledge to projects tackling climate change, fuel poverty reduction, sustainable transport and the provision of other local support services. Broader support for the community energy sector is reflected in the high number of affiliated members of community organisations.



# 3. Community energy in the North West

Just over 4900 members are associated with community energy projects in the Northwest region, averaging 195 per organisation. Over 1200 of these are members of one organisation, Baywind Energy Co-operative, which was the first UK co-operative to own wind turbines.

While 72 full-time employees were reported to be working in the sector at the end of 2023, the majority of these were employed by Energy4All and Carbon Coop. Only 11 organisations out of 48 had the means to employ paid staff with the rest relying on volunteers to deliver projects and services. While limited paid staff capacity is clearly still a problem for the majority of organisations in the North West, over the past two years 8 organisations told us they employed new staff - 17 new FTEs in 2022 and 12 new FTEs in 2023. These are significantly higher numbers than the 4 new FTEs reported in 2021, suggesting that the sector is successfully finding ways to generate income from projects and/or secure grant funding for staff resource despite changes to the community energy support landscape in recent years.



# 4. Energy generation

There are currently 22 community organisations involved in electricity generation projects in the Northwest region to give a combined total electricity capacity of 17.7MW. Though this figure is higher than the 17MW reported in 2021, there was no new capacity reported for 2022 or 2023, and the additional 600kW represents previously existing capacity that was previously unknown. Wind is still the dominant technology totalling 11.5 MW comprised of both the Harlock Hill wind farm (4.6 MW) and the Mean Moor wind farm (6.9 MW), both owned by High Winds Energy Community Energy Society. This accounts for 28% of all wind capacity in England.

There is a further 3MW of hydro generating capacity currently in operation representing 78% of all hydro capacity in England, the majority of which comes from the 2.4MW Ellergeen hydro installation and 9 smaller <150kW Installations located across the region. The remaining generation consists of 3MW solar capacity and 250kW of Anaerobic digestion.

Based on the installed capacity, the amount of electricity generated within the license area in 2023 is estimated to be around 37.6 GWh, equivalent to the energy demand of just under 14,000 UK households (assuming Ofgem's annual average household usage of 2700 kWh) and providing carbon emission savings of just over 10,000 tonnes a year.



# 4. Energy generation



Generating 37 GWh of electricity



Saving 12,000 tCO2e annually

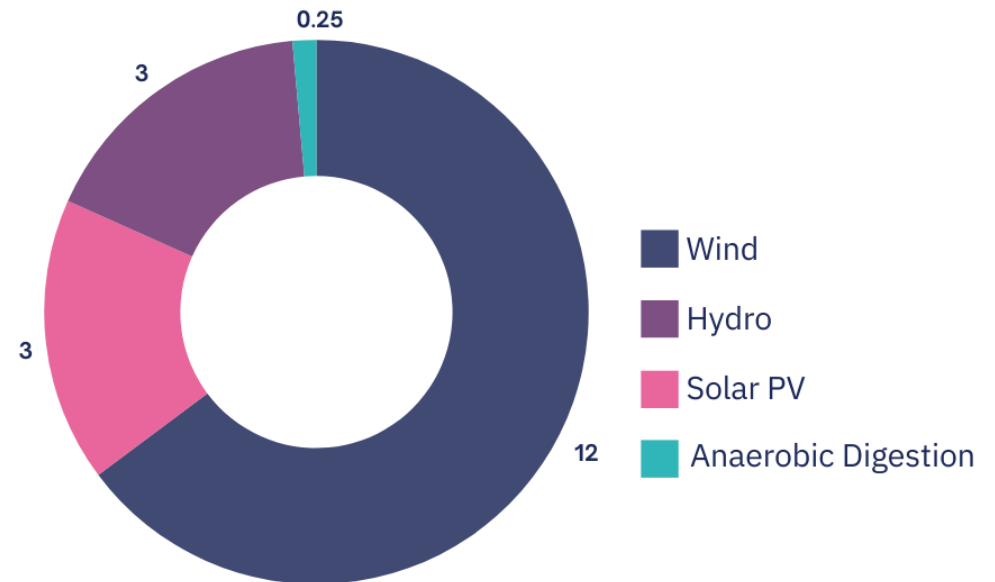


Powering 14,000 households

The absence of any new generation capacity in the North West provides an indication of how difficult new project development has been for the community energy sector in recent years. This is a trend that is also seen in Scotland and Wales where they have historically tended to outpace England in terms of renewable electricity growth. With Scotland reporting no new generation in 2023 and Wales reporting an increase of only 0.5MW, it seems that the sector is experiencing a sustained slowdown in growth rates that is being felt across the home nations.

No new heat generation projects were reported in the region in 2022 or 2023 with the only exiting operational installation being the 22kW solar thermal system owned by Morecambe Bay Community Renewables. This is not unique to the North West and is merely reflective of the difficulties developing community heat projects felt by the wider community energy sector in England which saw heat generation capacity increase by only 162kW between 2021 and 2023.

**Electricity Generation Capacity (MW)**





# 5. Low carbon transport

Low carbon transport is an area that has seen significant new development in the Northwest since 2021 with 20 new community owned EVs hitting the streets in 2023 where there were previously none. Charge point infrastructure has also increased by over 100% with a total 220 charging units now operational in the area, representing 57% of all reported community-owned chargers in the U.K and 37% more than all other network operators combined.

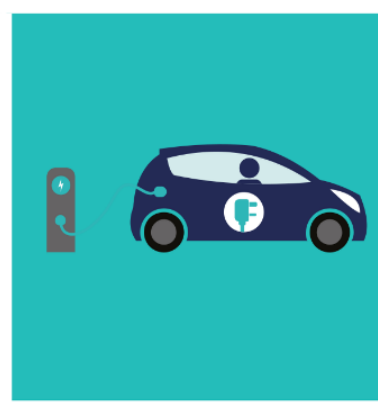
This charge point infrastructure has been installed by just two organisations. The largest developer being Charge My Street, who own and operate 200 charging stations and Carbon Co-op with 20.



EV charge points



community-owned electric vehicles



**CASE STUDY:** Charge My Street focus their efforts on addressing the growing need for EV charging infrastructure in residential areas, particularly in disconnected rural areas or urban spaces without private parking. By leveraging local knowledge and crowdsourced funding, the organisation empowers communities to take control of their EV infrastructure needs, ensuring that even in underserved areas, residents have access to convenient and reliable charging options.

With financial support from Electricity North West's Powering Our Communities Fund, they are rolling out their Solar Charging Homes Without Driveways (SCHOWD) project to enable customers to charge their vehicles using solar energy. The technology involves allows them to monitor surplus solar power and redirect it to their chargepoints. The project started in 2022 and technology will be rolled out across seven sites in the North West.

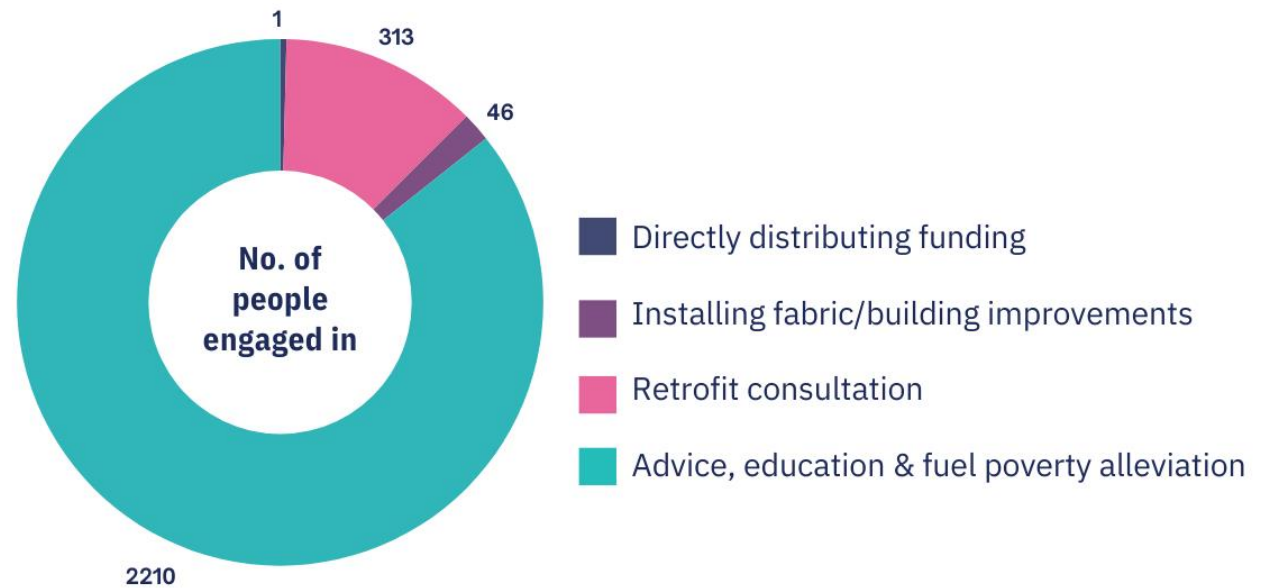
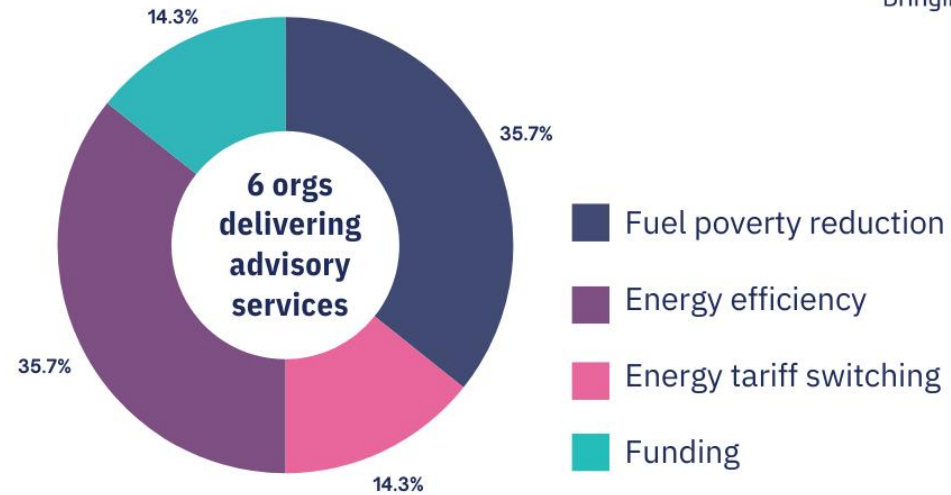


# 6. Energy efficiency

In 2023, eight organisations, or 16% of all organisations in the North West, were involved in delivering energy efficiency services focusing on areas such as energy efficiency advice, building assessment and audit, and retrofit measures. While there have been no new organisations offering these services since 2021, the data indicates that those core organisations already providing energy efficiency services are using skilled staff with formal qualifications.

Advisory services cover areas such as energy tariff switching, priority services registration, the suitability of renewable energy technologies, funding, energy and efficiency information delivered via workshops and cafes, home visits and permanent locations open to the public. Most organisations offered these services free of charge but specialist providers such as Carbon Co-op and People Powered Retrofit also provide paid services. These services have a meaningful impact and have helped communities in the North West to save an estimated £540,000 in 2023.

People Powered Retrofit is a non-profit community benefit society based in Manchester focusing on making home energy retrofits more accessible and effective for homeowners, particularly in older homes that are difficult to insulate and heat efficiently. In the last two years they have employed 12 FTEs in the North West which accounts for 48% of all new paid employees in the community energy sector.



# 7. Funding and finance



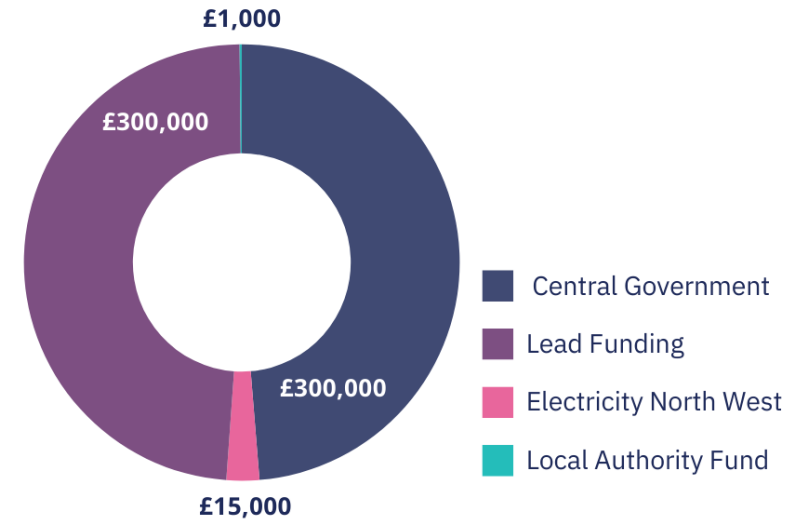
Funding for the development of new and innovative projects was a little higher than 2021 levels with £683k secured in 2022 and £616k in 2023, however the funding was shared amongst only 6 organisations. In 2023, the vast majority of this funding - £600k - came from UK central government with £300k received from their Local Energy Demonstration Projects (LEAD) competition. This new £20m fund supports projects that test new and innovative approaches to providing in-person energy efficiency and clean heating advice to consumers at a local level.

Carbon Co-op, Cumbria Action for Sustainability and Rossendale Valley Energy all successfully secured funding from LEAD. Carbon Co-op's Energise Manchester project targets hard-to-treat properties in South Manchester offering tailored solutions for the housing stock in the area, while Cumbria Action for Sustainability's Cold to Cosy Homes Cumbria project targets hard-to-reach consumers and hard to treat homes in rural Cumbria by offering in-depth home retrofit advice.

Community Energy Preston incorporated as a Community Benefit Society in 2023 and secured £15k from Electricity North West's Powering Our Communities fund to carry out initial feasibility and business case analysis for potential solar sites around Preston. An additional 5 community organisations received funds from the Powering Our Communities Fund in 2023 bringing the total to £83k. Activities receiving support ranged from innovative retrofit, solar PV and EV charging point installations and awareness raising campaigns and engagement around the transition to a low carbon future.

Investment in community energy across 2022 and 2023 totalled £2.2m with £1,397,700 raised in 2023 alone. This is an increase of 37% compared with 2021. Over 1 million pounds of this was in the form of grant funding with the remainder raised from community share offers. Two organisations received the bulk of this figure with £650k raised by Carbon Co-op and Greater Manchester Community Renewables raising £350,000 via a community share offer to fund the installation of a solar array at Wellington School in Timperley, which will be their biggest solar array to date.

**Development Funding in 2023**



**Investment**



# 8. Networks and partners



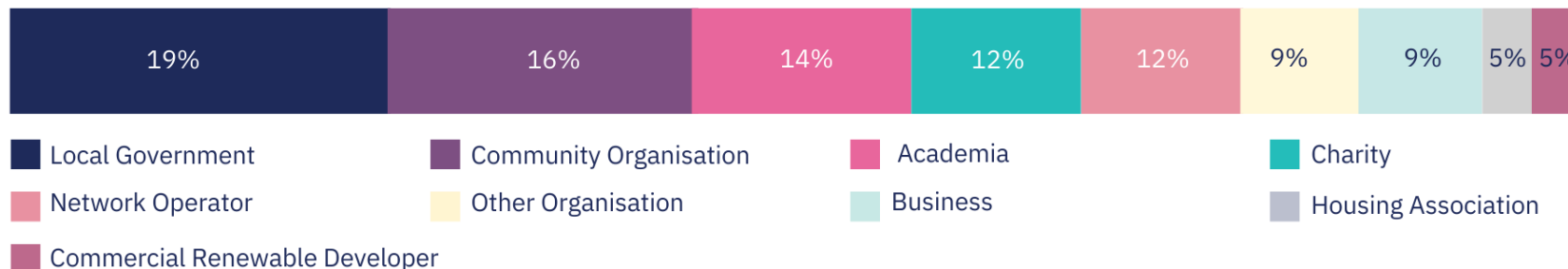
Partnerships and networks can be significant factors for successful development and implementation of community energy projects. One such organisation adopting a partnership approach in the North West is Rossendale Valley Energy. Their Net Zero Terraced Streets project aims to deliver a community heat service using clusters of shared bore holes and ambient heat loops to provide more efficient community heating with less impact on the grid. Using smart-enabled technology and incorporating solar PV, energy storage and peer-to-peer Power Purchase Agreements (PPAs), the goal is to reduce consumer energy bills and minimise peak demand on the grid. The success of this type of innovation project relies on developing effective partnerships with multiple stakeholders including the local authority, community energy organisations, resident groups, supply chain, energy suppliers, aggregators and the local distribution network operator. RVE have worked in partnership with Electricity North West to deliver research into the Net Zero Terrace concept using Strategic Innovation Funding.

In 2023, 11 community organisations in the north west had established 43 formal or informal partnerships with other organisations in an effort to support their activities and development goals. The most common partnerships were with local government and other community organisations which make up 19% and 16% of all partnerships respectively.

In 2023, 18 partnership projects were complete, thirteen are currently in progress and a further 8 are at an early stage of development. Two groups reported an active partnership with Electricity North West and another was in early stage discussions with them to help progress projects. These relationships are important for all parties to work toward shared goals and enable community energy organisations to better achieve their potential while working in a challenging regulatory environment with financial restrictions and often with very limited staff capacity.

Community energy organisations also reported the types of support received from partners as well as how important the support was to their projects. Unsurprisingly, over half of the organisations in the North West reported that DNO technical support was very important to them as was having access to their wider partner network. This is no doubt reflective of Electricity North West’s long history of providing a dedicated support and engagement programme to the sector via their named community energy contact, Powering our Communities Fund and Community Connects workshops.

## Partnerships



# 9. 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 is commonly delivered directly to communities via community benefit fund distributions, which can take the form of grants or loans.

In 2023, seven community energy organisations reported a total community benefit fund value of £126,620 and distributed a total of £119,500 to communities. Around 34% of this spend came from Halton Lune Hydro which granted awards to a range of activities including solar PV upgrades, battery installations and woodland restoration work. Organisations also identified fuel poverty services, low carbon transport projects and energy efficiency services as spending priorities.

An average of 59% of community energy organisational expenditure was spent locally in the Electricity North West licence area, which is lower than the UK average of 77%. However, this still amounts to £950k being directly used to support local economies in the North West which is an increase of 12% compared with 2021. The community energy sector also created 29 full time equivalent jobs in 2022 and 2023 bringing the total number of FTEs employed by community organisations to 72 by the end of 2023.

In terms of where they wanted their organisation to have the most impact, respondents highlighted the following priority areas: developing local support for renewable energy projects, promoting awareness of energy efficiency strategies and understanding of the energy market, and establishing networks for all community organizations to work co-operatively to improve community resilience.



An estimated 10,080 tCO<sub>2</sub>e was saved from emission as a result of the 36.3 GWh of electricity generated by the community energy sector in 2023, which would satisfy the energy demand of approximately 12,600 homes. This number is a conservative estimate however and does not take into account the carbon savings from heat, transport and storage projects, or energy efficiency activities which are more difficult to quantify.

One of the largest generating organisations in the Northwest region is Greater Manchester Community Renewables (GMCR) which is focused on developing renewable energy projects across the Greater Manchester area. The organisation works by raising funds through community share offerings, allowing local residents to invest directly in solar panel installations on schools, community buildings, and other local sites. The total electrical generating capacity for all the GMCR solar sites currently operating in 2023 is 734kW.



# 10. Overcoming barriers to community energy

The barriers to community energy in the northwest region are wide ranging but the lack of a viable business model, reported by 17% of respondents, and raising funds for staff and project delivery (11% of respondents) were found to be the biggest issues. This may be reflective of the shift in focus away from energy generation projects in recent years toward low carbon heat and energy efficiency work which have proved more challenging in terms of generating revenue streams, particularly since the erosion of government support mechanisms since 2019. Retaining volunteer staff was also identified as a significant challenge by 11% of groups.

These challenges closely resemble the UK national picture with organisations highlighting the lack of a viable business model, issues connecting to the grid, funding staff and retaining volunteers as key barriers.

As a result of these challenges, five projects in the North West were reported to be either on hold or stalled. Four of these are electricity generation projects, with a total stalled capacity of 6.3MW, with all organisations citing limited staff capacity and high grid connection costs as key reasons. Limited grid capacity is a UK-wide issue, particularly in more rural areas, and grid reinforcement costs are usually prohibitively expensive for community-scale projects.



# 11. Looking to the future

Despite the uncertainty around potential support mechanisms and funding available now and in the coming years, the sector is showing resilience and adaptability in their plans for the next few years by investigating new opportunities and developing new projects outside of their current focus. This follows a similar trend developing over recent years in the community energy sector, where groups have recognised the need to diversify the types of work they are involved in as a response to the financial, regulatory and organisational barriers in place.

Fourteen community energy projects were reported in the survey as currently being developed across the North West compared with 27 in 2021 which is perhaps indicative of the difficulties facing the sector right now. Of these there are 3 electricity generation projects, 1 low carbon heat project, 1 energy storage project and others focusing on a range of areas such as local supply, flexibility, whole energy systems, energy efficiency advice and retrofit. Organisations have estimated they will need to raise £2.35 million in capital funds by the end of 2023 to be able to progress these.

Whilst there are new opportunities to take advantage of, communities feel they must be better supported to understand, engage and take advantage of these, to enable the sector to grow and pass on the benefits to those most in need. They also highlighted the importance of maintaining a steady stream of developments and diversification of activities to continue growing.



One organisation said they intend to prioritise “supporting our community more and undertaking more work with residents. We have focused most of our energy so far on generation and getting our CBS in a sound management system. Now we want to use our benefit fund to fund a community project officer as we believe this will lead to much greater impact.”

There is also a desire to look for “more opportunities for new, larger scale community energy activities”, though it has been highlighted that, in order to unlock these opportunities much of what will be possible over the next few years will depend on government policy and the level of ambition needed to support the community energy sector to achieve its full potential.



# 12. Working with Electricity North West

## Powering our Communities Fund

Since 2018 the Fund has committed a total of ££500,000. across 25 projects. Each year the fund has an annual value of £100,000 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/future-energy/community-and-local-energy](http://www.enwl.co.uk/future-energy/community-and-local-energy)

 **Electricity North West,**  
**Borron Street, Portwood**  
**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**

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

 **@Comm1NRG**





## Electricity North West

Electricity North West is the regional distribution network operator for the North West of England. We operate £13bn of critical infrastructure including 13,000km of overhead lines and 44,000km of underground cables. Our network supports the economic powerhouse of the North West of England covering Cumbria, Lancashire, Greater Manchester and parts of Cheshire and Derbyshire.

We support the 2.4m properties connected to our network which is the most reliable in the UK. We are also one of the most efficient networks, with our charges coming in at around 30p a day. Our customer service scores are around 90% and we invest in tailored support programmes to help customers in fuel poverty or who need extra care.

We're the most innovative network operator and are investing £2bn from 2023-2028 to ensure sustainable growth for the region. We're supporting local authority ambitions on climate targets and enabling customers to connect and use low carbon technologies such as solar panels, electric car charging points and heat pumps.

We care about the people in our region our place in their lives, and the prosperity of our region.

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Electricity North West

Limited Registered Office:  
Borron Street

Stockport  
Cheshire SK1 2JD

Registered no: 2366949 (England)