

SP Energy Networks

Community Energy: State of the Sector Report





Contents



| | |
|---------------------------------|-------|
| Introduction | Pg 03 |
| Sector Overview | Pg 04 |
| Community Energy Developments | Pg 05 |
| Identifying Barriers | Pg 06 |
| Networks & Partnerships | Pg 06 |
| Low Carbon Transport | Pg 07 |
| Energy Efficiency | Pg 08 |
| Funding and Finance | Pg 09 |
| Looking Toward the Future | Pg 10 |
| Working with SP Energy Networks | Pg 10 |
| Case Studies | Pg 11 |

Introduction

We have commissioned this report to gain a deeper understanding of the current performance of the community energy sector within our operating regions.

This report will provide an overview of the sector, focussing on the growth of new low carbon technology projects being developed by communities, including:

- Energy Storage and Generation
- Low Carbon Technology
- Networks and Partnerships
- Energy Efficiency Services
- Funding and Finance
- Barriers to Community Energy

SP Energy Networks are responsible for the transmission and distribution of electricity to over 3.5 million homes and businesses across our licence areas: Central and Southern Scotland, North and Mid Wales, Merseyside, Cheshire, and North Shropshire.

This report will identify the challenges and opportunities faced by community energy organisations in our areas and the progress made in 2023. In doing so, we hope to better support and collaborate with community energy organisations. Our goal is to enable these communities to play a full role in the drive toward Net Zero.

The information gathered will be used to develop our Community Energy Strategy ensuring that we can provide targeted support and foster effective partnerships with groups and projects.

Survey Focus Areas:

- Activities and Projects in 2023
- Motivations and Challenges in 2023
- Value and Impact
- Funding and Investment
- Future Outlook

The information within this report was gathered by:

The three representative bodies of the community energy sector across the UK:

- Community Energy Scotland
- Community Energy England
- Community Energy Wales

The research for this report was conducted as part of the annual Community Energy State of the Sector UK project using data from April to June 2024 and from past surveys and research.



How are SP Energy Network Supporting Community Energy?

Sector Overview

Community Energy in Central and Southern Scotland, North and Mid Wales, Merseyside, Cheshire and North Shropshire.

Community Energy Locations:

- 71 community organisations were working on energy projects within the SP Energy Networks regions in 2023.
- 33 organisations were operating in Central and Southern Scotland (SP Distribution, SPD).
- 38 Community organisations were operating in Merseyside, Cheshire, North Shropshire, North and Mid Wales (SP Manweb, SPM).

Community Energy Workforce:

- 10,434 people were registered as members of a Community Energy Group (averaging 335 members per organisation).
- 114 full-time staff were delivering a range of projects in this area (averaging just under 5 per organisation).
- 796 volunteers supported organisations in delivering community energy projects (averaging 23 volunteers per organisation).

Community Energy Generation:

- 20.0MW of installed electricity capacity generated.
- 45.4GWh is enough to power nearly 17,000 homes a year.

Community Energy Funding:

- £425,000 in development funding was secured.
- £91,000 was raised for new projects.
- Over £153,000 was spent from the Community Benefit Fund.

Types of Community Energy Organisations:

- Scottish Charitable Incorporated Organisation
- Company Limited by Guarantee
- Community Interest Company
- Company Benefit Society
- Co-operative Society
- Unincorporated
- Other

75%
of organisations relied entirely on the support of volunteers and members to operate

45.4GWh
is enough energy to power up to 15,000 homes a year

Community Energy in our licence areas

10,434

members of Community Energy Groups

114

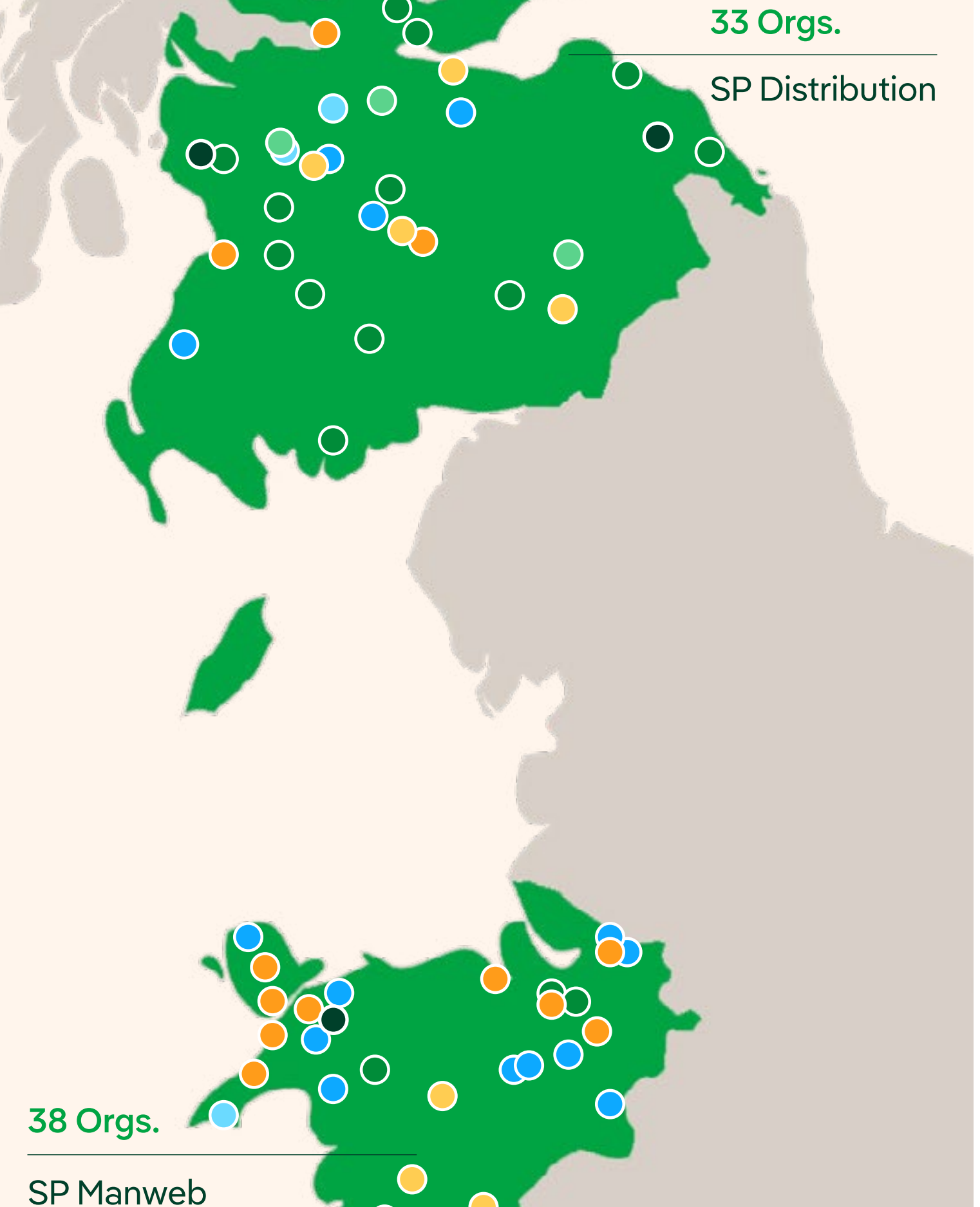
full-time employees

796

volunteers organisations

71

community organisations



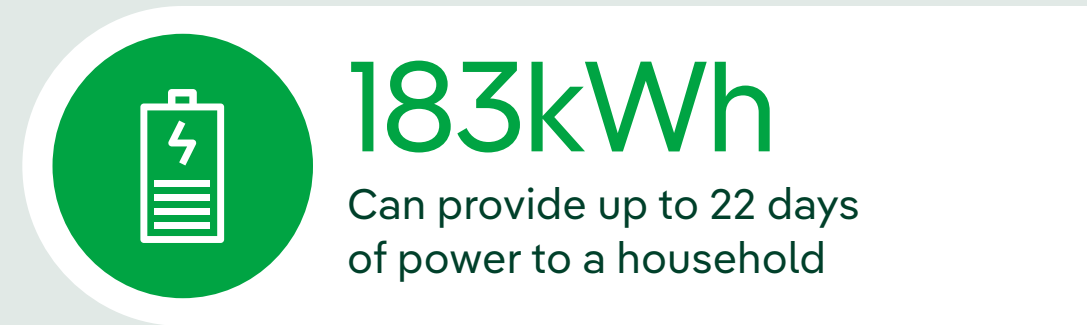
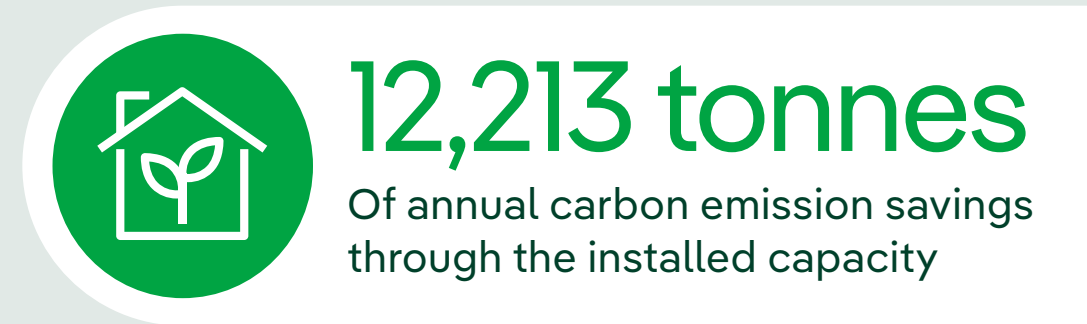
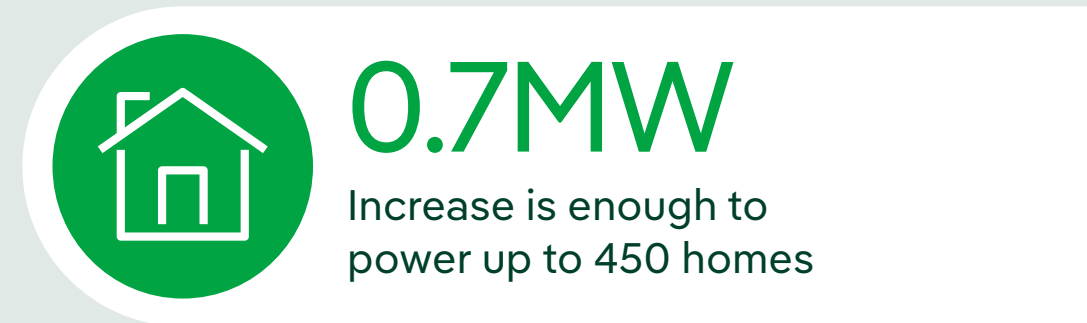
Community Energy Developments

In recent years, community energy initiatives have seen remarkable advancements in energy generation and storage technologies, empowering communities to achieve greater efficiency and sustainability in their local projects.

Energy Storage

In the SPD area, 4 electric battery systems are currently in operation. The total storage capacity was 183kWh, most of this was installed in 2021 by the Edinburgh Community Solar Co-operative (ESCS).

In 2023, 4 organisations were developing storage projects as part of wider flexibility and whole systems innovation projects within our licence areas.



Community Energy Generation

Total installed capacity – 20MW

Total generation capacity output – 45.4GWh

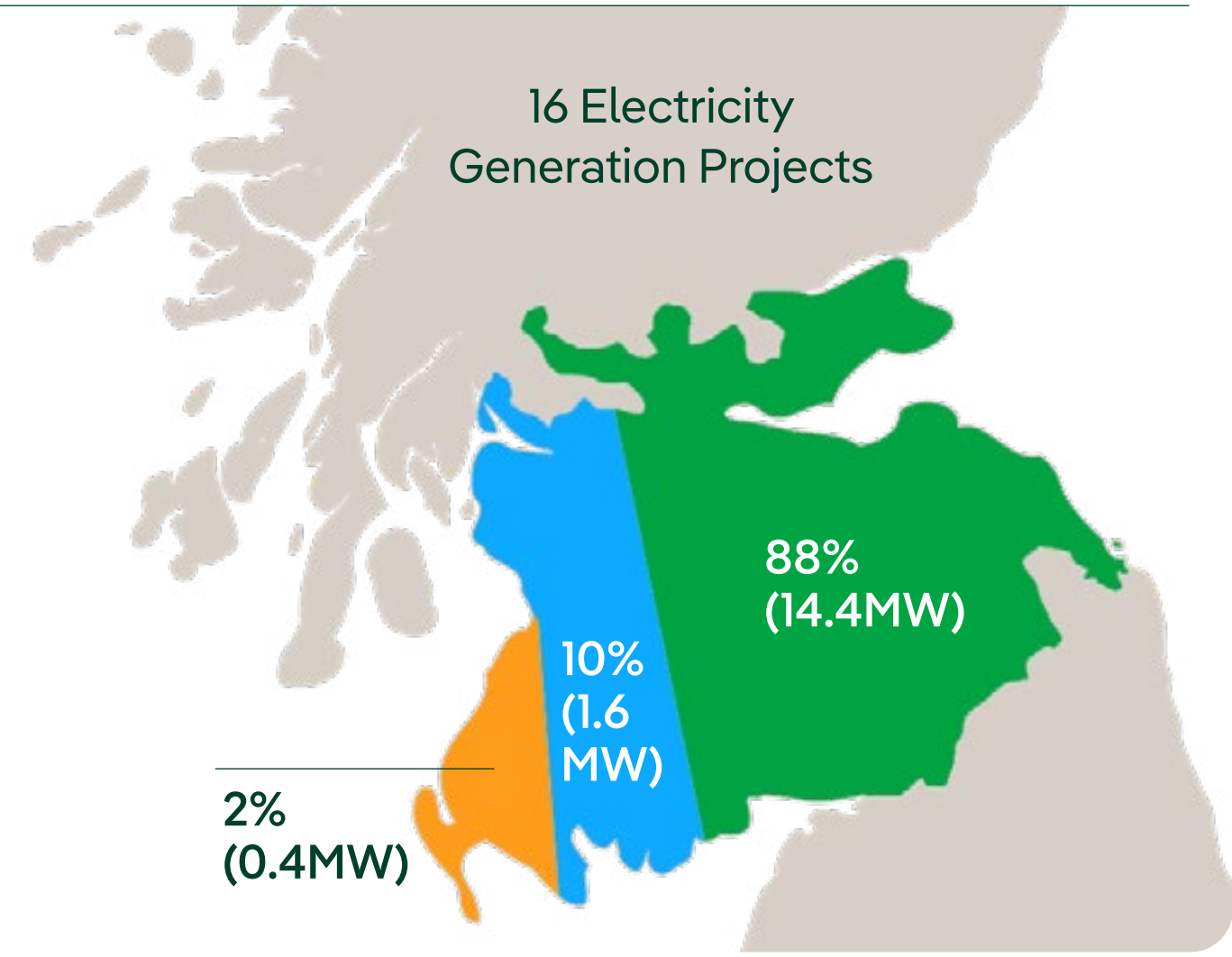
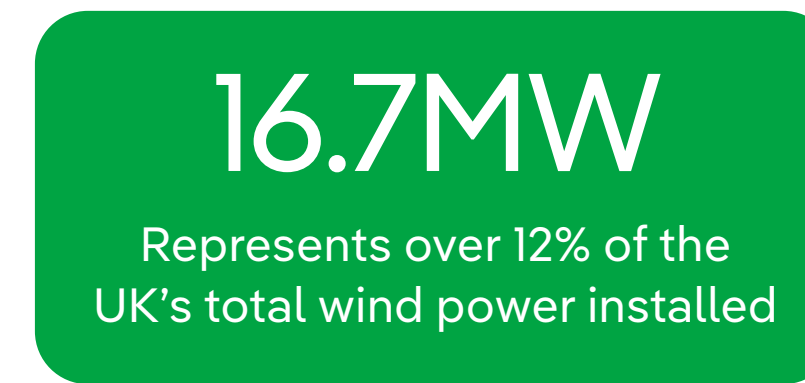
Generation growth since 2021 – 0.7MW

Wind power attributes – 16.7MW

SP Distribution

In SPD, there is 16.4MW of installed electricity capacity with almost half of this owned by organisations supported by [Energy4All](#).

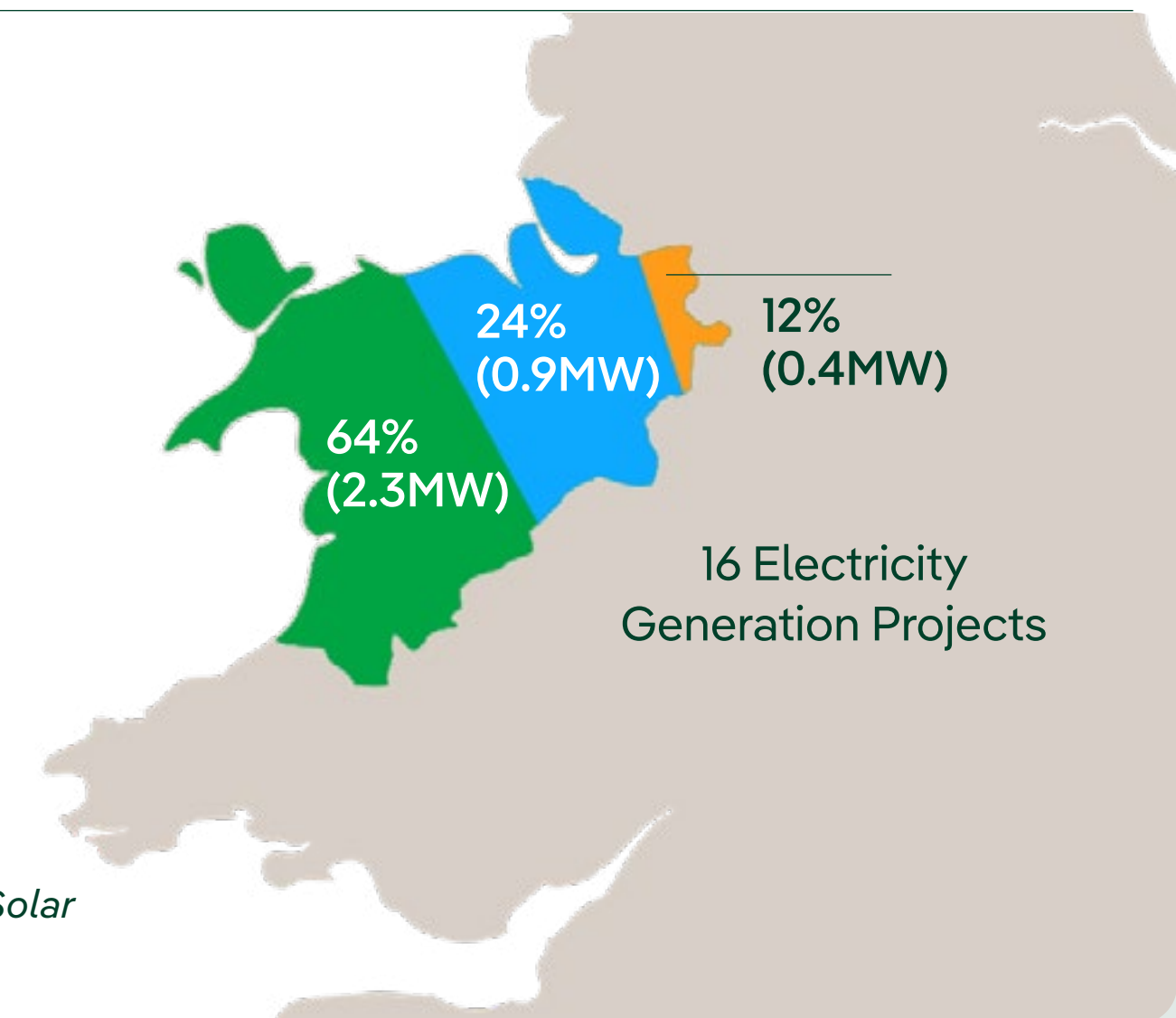
The dominant technology was wind (14.4MW) with smaller amounts of solar (1.6MW) and hydro (0.4MW).



SP Manweb

SPM boasts a total renewable electricity capacity of 3.6MW, primarily from wind and hydro sources in north Wales, with some solar PV in England.

While community-owned heat projects are less common due to high capital costs and investment challenges, the sector is poised for growth.



Identifying Barriers

To unlock community energy’s potential, the sector has identified the need for specific measures.

Long-term, stable, and supportive policy environment

- Supports the freeing up of capacity and resources necessary for organisations to thrive.
- Encourages the development of innovative solutions and sustainable practices.

Additional funding streams providing long-term financial support

- Allows community energy organisations to access and retain the necessary expertise, skills, and staff.
- Ensures the sustainability and growth of community energy initiatives.

Community Energy organisations highlighted which barriers they found to be most difficult to overcome:

- 15% Grid Connection
- 8% Lack of skills and technical expertise
- 8% Leadership team and/or board
- 8% Raising community capital
- 8% Compliance and administration

Overcoming Barriers

Addressing funding, grid, recruitment, and capacity barriers with community engagement and targeted solutions is vital for the community energy sector’s sustainable growth.

23%

Ranked fundraising as the greatest challenge faced by organisations.



16%

Emphasised difficulty in Funding and Recruiting Staff.



5%

Highlighted a lack of viable business models was the lowest ranked barrier.



Networks & Partnerships

Through collaborating with other organisations, community energy groups can effectively overcome common barriers.

Engagement and Collaboration

SP Energy Networks’ Licence Areas: Nearly a third of all organisations began new formal or informal partnerships in 2023.

Each partnership had a clear emphasis on engagement and collaboration with key stakeholders.

Partnership Statistics:

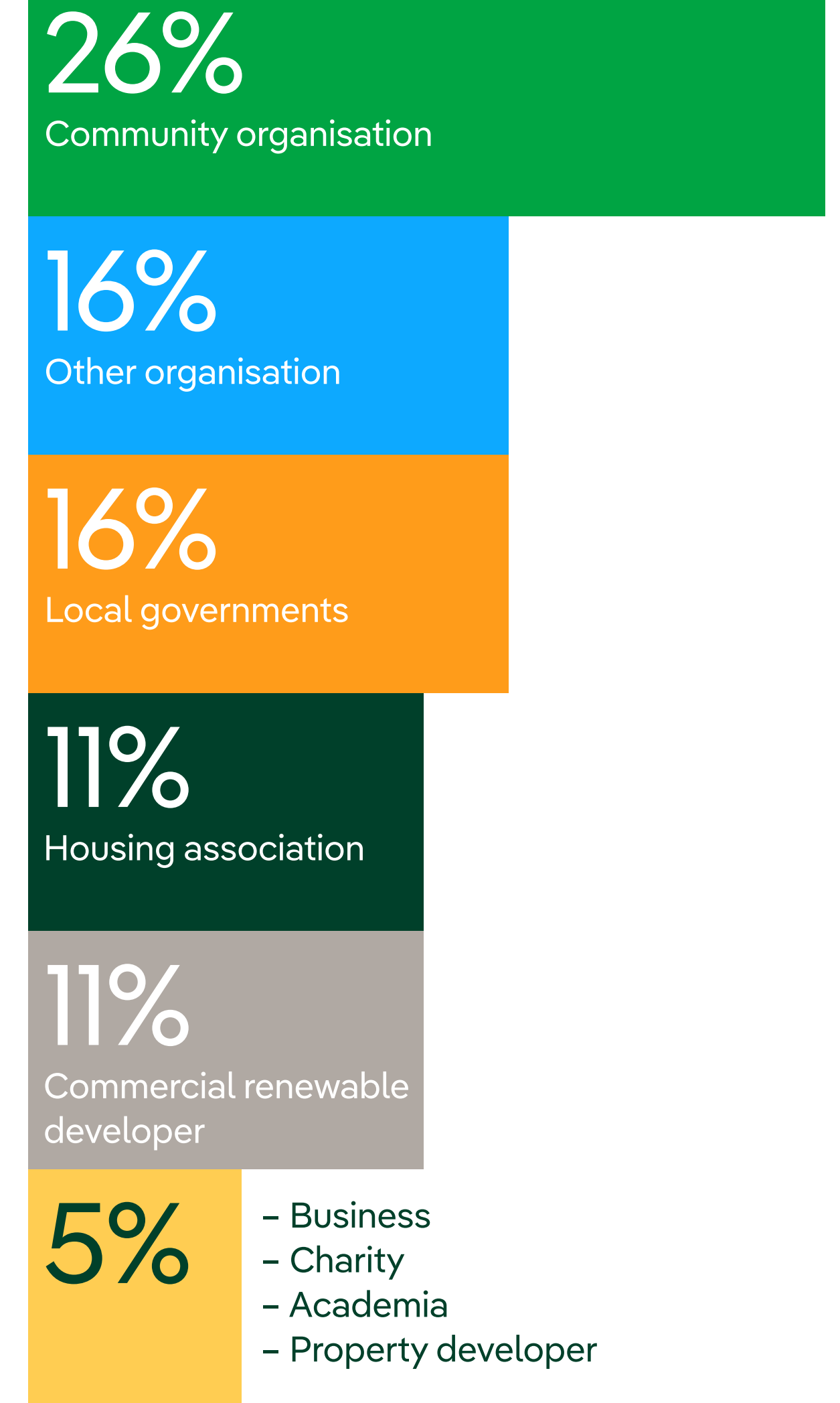
- 6 partnership projects completed.
- 2 partnership projects currently in progress.
- 9 partnership projects at an early stage of development.

Addressing Barriers Through Partnerships

Partnership Benefits:

- Sharing knowledge and best practices
- Pooling financial resources
- Enhancing staff time and capacity

Types of Partnerships:



Low Carbon Transport

Low carbon transport (LCT) projects are becoming increasingly attractive to community energy organisations. This shift is driven not only by the removal of government subsidies for energy generation projects but also by the growing demand for sustainable transport solutions, advancements in electric vehicle (EV) technology, and the potential for significant environmental and economic benefits.

LCT Landscape

Community organisations in SPD and SPM have been increasingly supporting the rollout of low carbon transport (LCT) projects:

- 27 groups reported involvement with LCT projects in 2023..
- Representing 24% of all UK organisations involved in LCT project delivery.
- An increase of 29% since 2021.

Electric Transportation

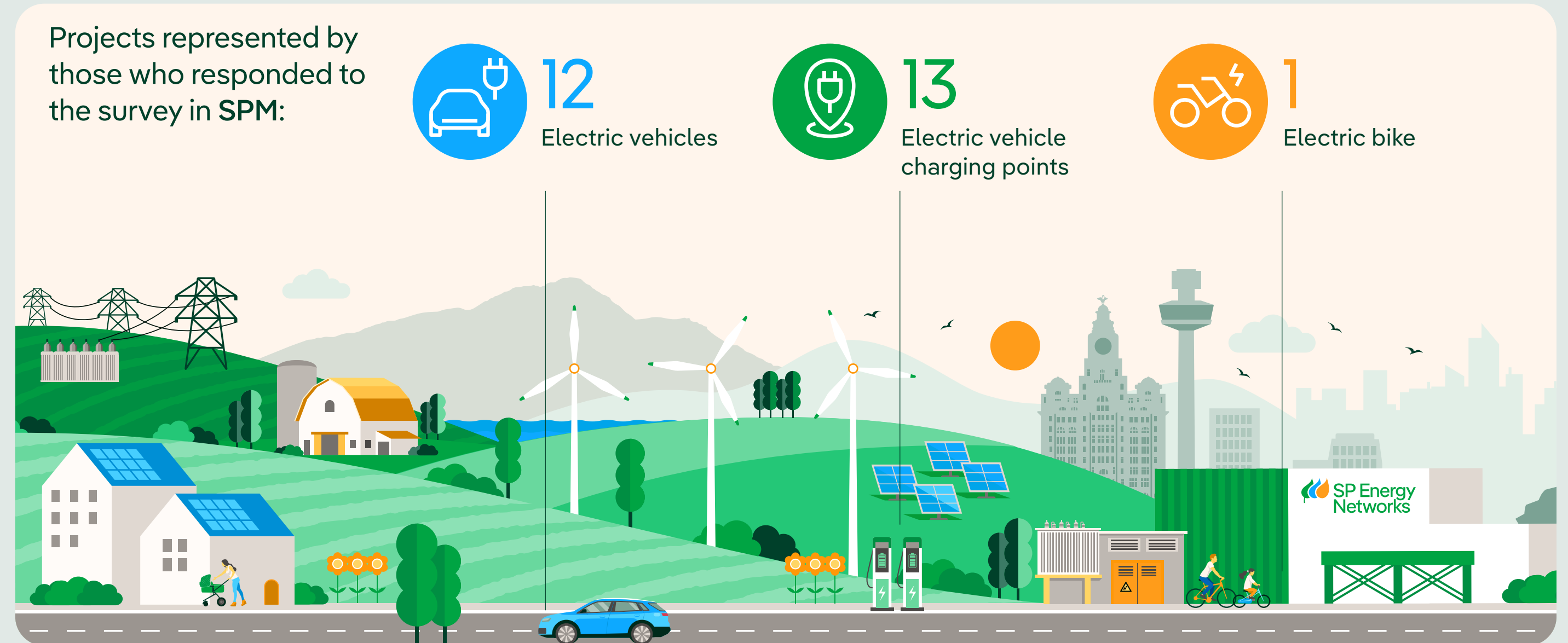
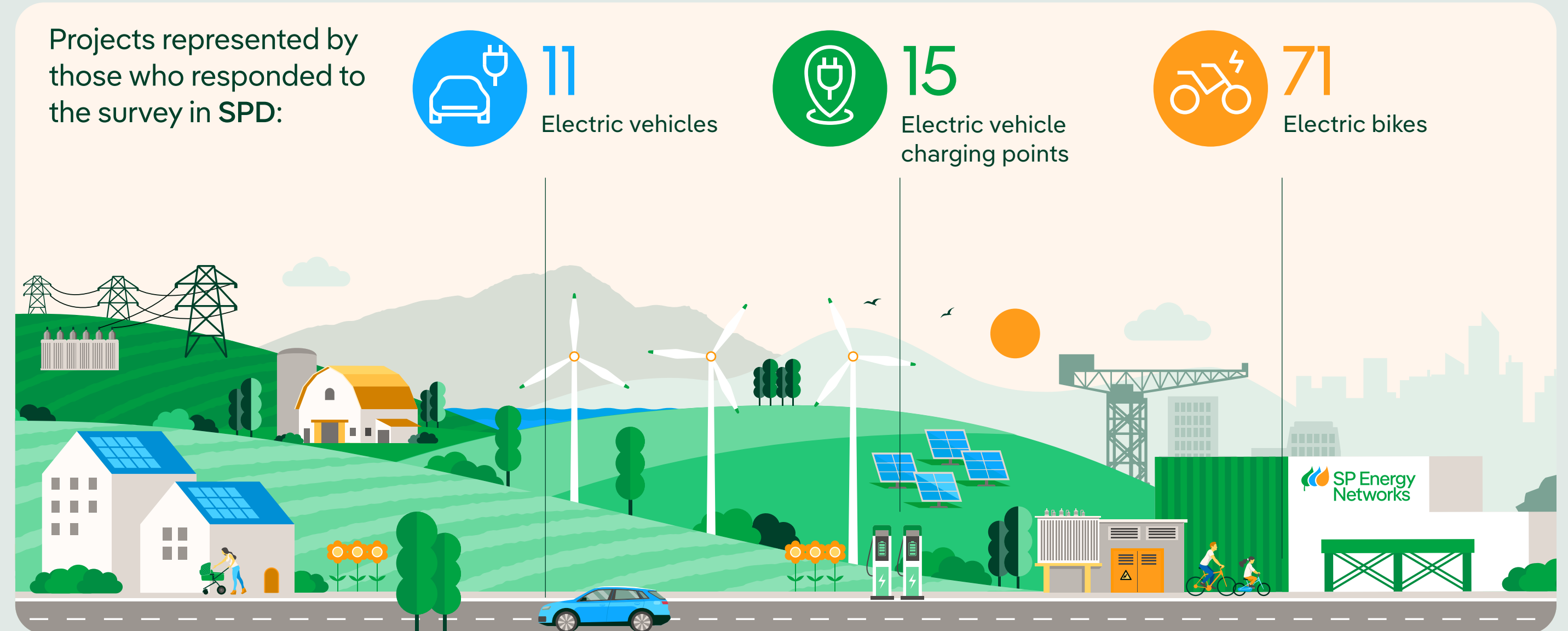
EV ownership is still a prominent part of LCT activities within the community energy sector:

- 48% of all LCT activities focussed on deploying EVs within communities.
- 99.87% of LCT schemes across our licence areas were community-owned.

Electric Vehicle Charging

EV charging infrastructure is crucial for supporting the growth of EV low carbon initiatives.

- 24 EV chargers in total are now owned by community groups across all SPEN regions.
- 13 chargers exists with the SPM area and 11 in the SPD area.



Energy Efficiency

Energy Efficiency services have increased steadily within the community energy sector in recent years. At SPEN, we work with local agencies that can provide free support services on energy efficiency.

These initiatives not only lower energy costs, enhance energy knowledge and opportunities, but also help to support the growth of community energy.

Service Delivery Focus Areas

Retrofit Measures: Upgrading homes to improve energy efficiency and reduce energy consumption.

Funding and Payment Support: Financial support and payment plans for energy-saving improvements.

Energy Workshops: Educational sessions on energy efficiency and conservation techniques.

Fuel Poverty Reduction: Initiatives to help households afford energy costs.

Home Visits: Personalised energy advice and assessments conducted at home.

Other Services

- Energy Advice Hubs
- Technology Guidance
- Installation Guidance
- Profit Re-Investment

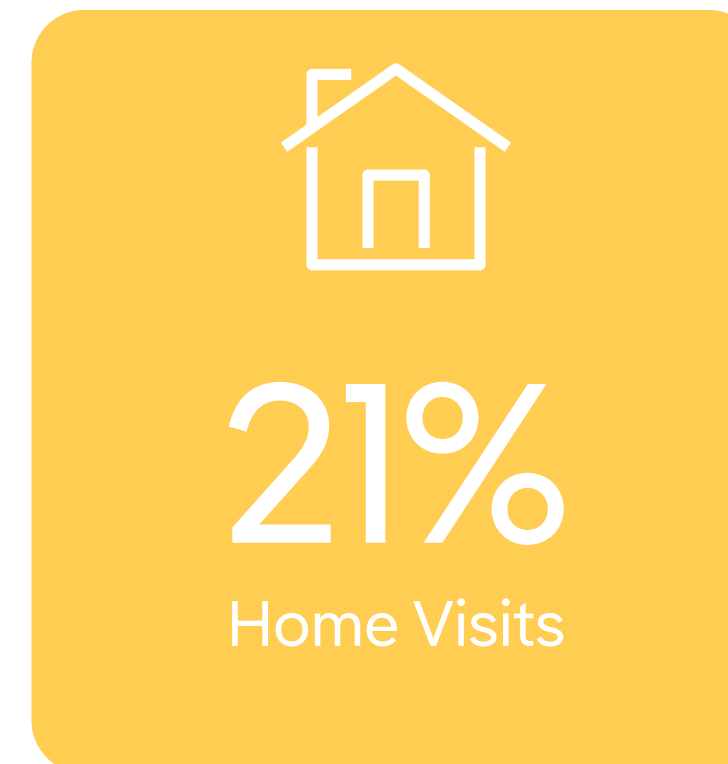
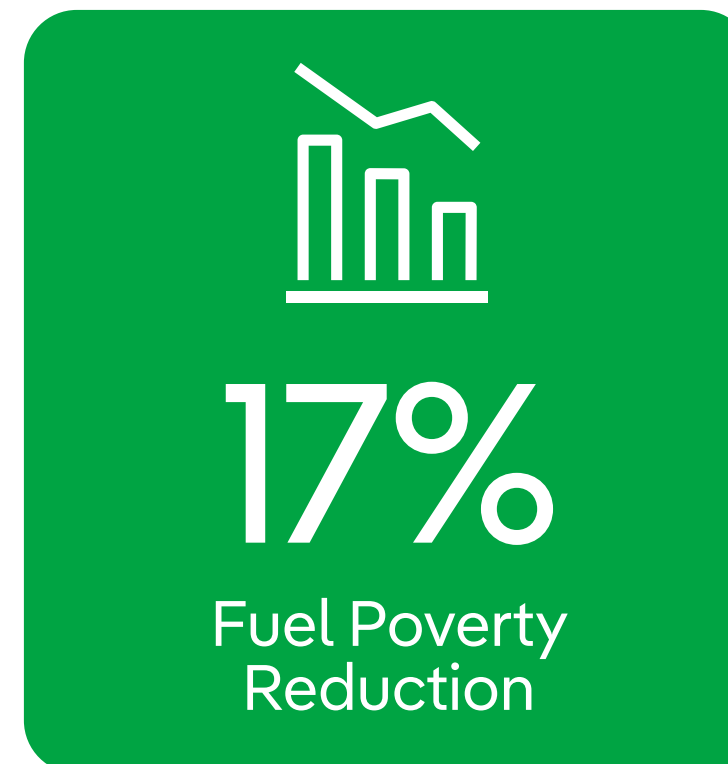
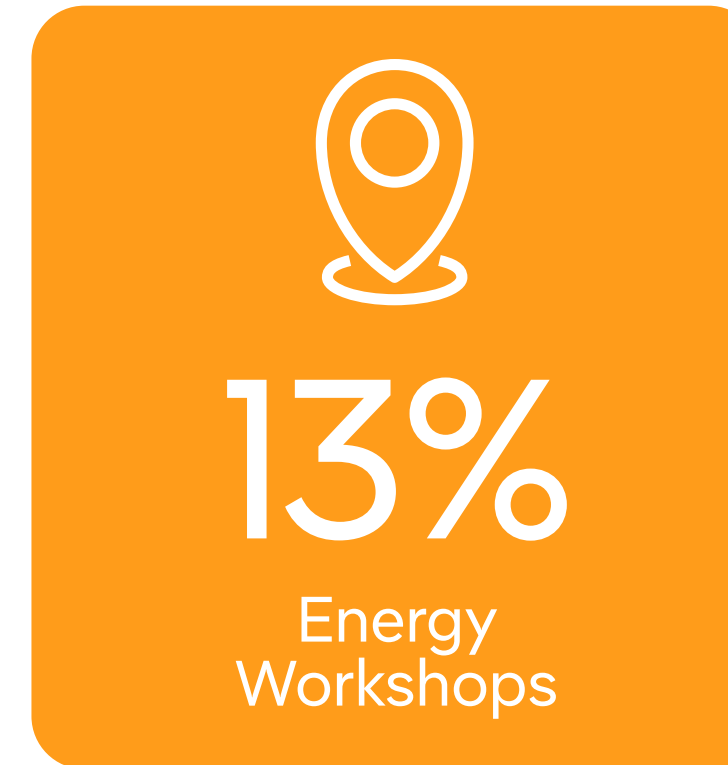
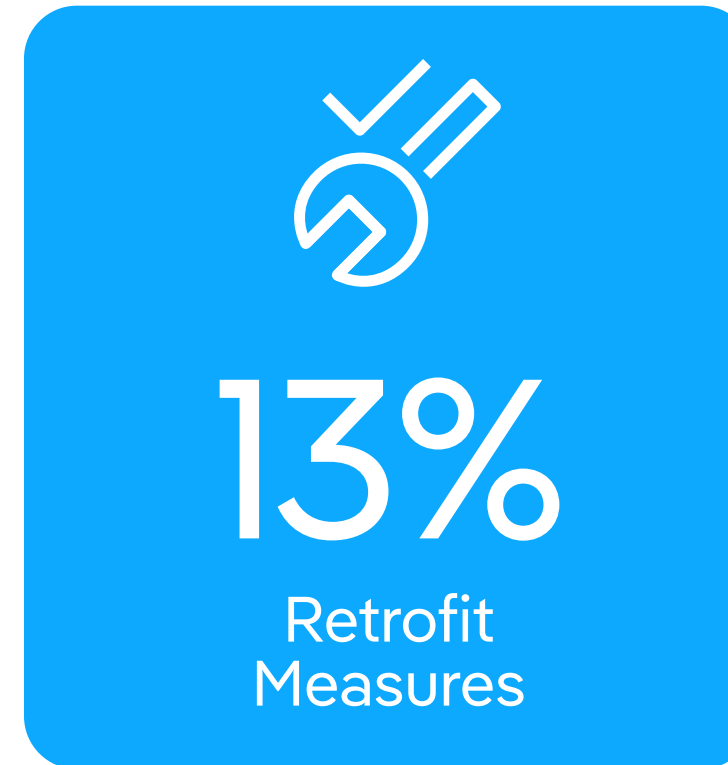


Support Focus Areas



16 Organisations delivered energy efficiency activities

Below represents the average percentage of time these organisations gave to specific activities:



Funding and Finance

Community energy organisations can bring a wide range of economic, social and environmental benefits to their communities. Securing adequate funding and finance for these projects is crucial for the success and sustainability of community energy initiatives.

Community Benefit Funds (CBF)

Revenue from community energy projects is often delivered to communities via CBF distributions, such as grants or loans.

2023 CBF Overview

- **£325k:** Total CBF value reported by 14 community energy organisations.
- **£212k:** Total distributed from the CBF.

Breakdown by Licence Area:

- **SPD:** Overall CBF Value came to **£137k** with **£105k** distributed.
- **SPM:** Overall CBF Value came to **£188k** with **£107k** distributed.

Community Benefit Funds (CBF)

81% of Community energy organisations' spend was locally based.

£277k was directly invested in local economies.

£212k CBF income given as grants to community initiatives.

Investment in Community Energy Projects

2021

£481k saw the highest level of investment over the last three years.

2022

£82k saw a significant drop off in investment from the previous year.

2023

£91k was invested into the sector in 2023.

Sources of Funding

£260k

Secured by Energy Local in the SPM region from the National Lottery Community Fund.

£56k – SPD

The main contribution came through the Public Sector Decarbonisation Scheme.

£50k

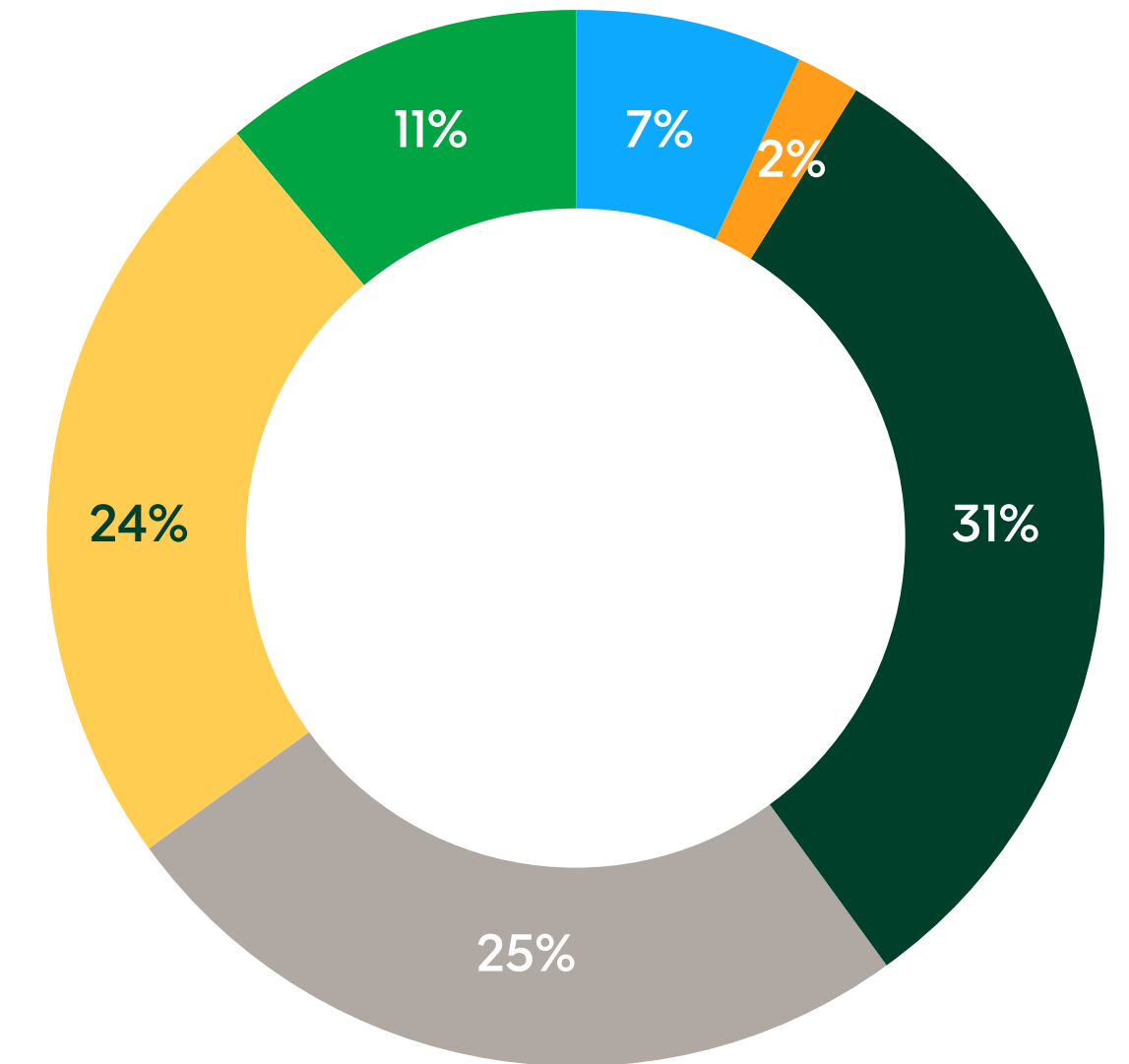
Additional funding across 2022/23 provided from SP Energy Networks.

Funding Challenges

- Majority of organisations reported raising no development funding.
- **Early-stage funding:** Lack of availability.
- **Staff capacity:** Insufficient resources to pursue funding.

Development Funding 2023

- Lottery funding, £130,000
- Central Government, £106,554
- Welsh Government, £101,999
- Public Sector Decarbonisation fund, £46,000
- SPEN, £30,000
- Local Authority Fund, £10,000

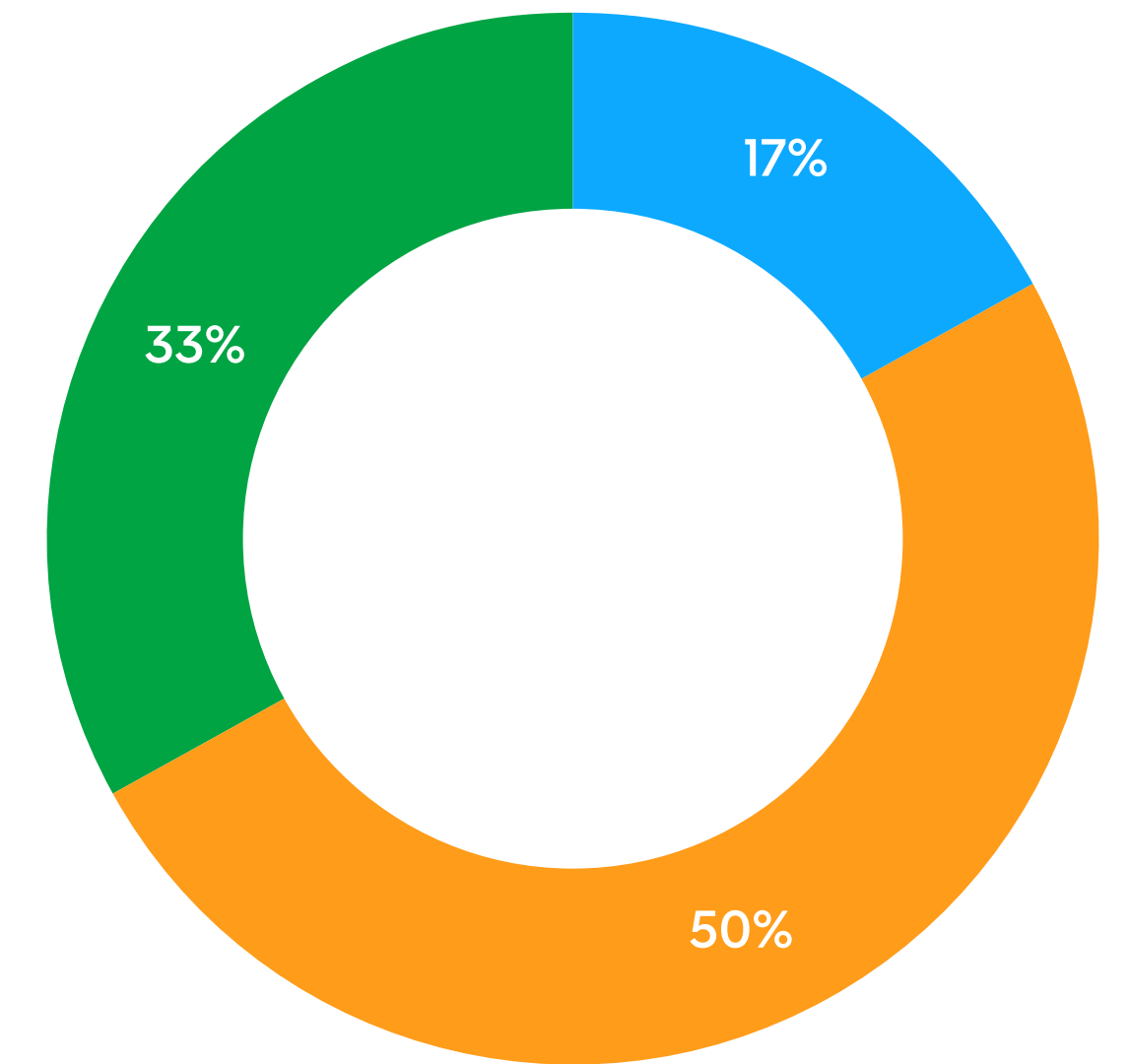


£425,000

Raised in 2023, a slight decrease in funding compared to £535k in 2022

Investment 2023

- Grants, £46,000
- Loans, £30,554
- Self Funding, £15,318



£59,000

Largest amount raised by a single group: *Corwen Electrical Co-Op (SPM)*



Looking Toward the Future

Plans for 2024 and beyond

In 2024, 30% of organisations plan to explore new project opportunities. Community energy groups are focusing on a variety of projects, including:

- **Electricity generation projects:**
Four groups are planning new initiatives.
- **Local supply and whole systems approaches**
- **Flexibility projects**
- **Energy efficiency advice and retrofit projects.**

This trend highlights the sector’s recognition of the need to diversify their work in response to financial, regulatory, and organisational barriers.

Importance of Diverse Funding Pathways

To ensure the continued growth and development of the community energy sector, it is crucial to establish more diverse funding pathways. This will enable community groups to:

- Access necessary resources
- Develop innovative projects
- Serve their communities effectively.



More information

If you are interested in learning more about SP Energy Networks’ work with communities or have an idea you would like to develop with us, visit:

www.spenergynetworks.co.uk/pages/community_energy.aspx

You can also stay up to date with the latest community energy developments, by [registering with us as a stakeholder](#).

Working with SP Energy Networks

Our [Zero Carbon Communities Hub \(ZCCH\)](#) is an online resource designed to support individuals and communities interested in reducing their local carbon footprint.

Resources and Support

The hub provides a variety of resources and links, offering practical and technical advice, as well as examples of innovative community energy projects for inspiration.

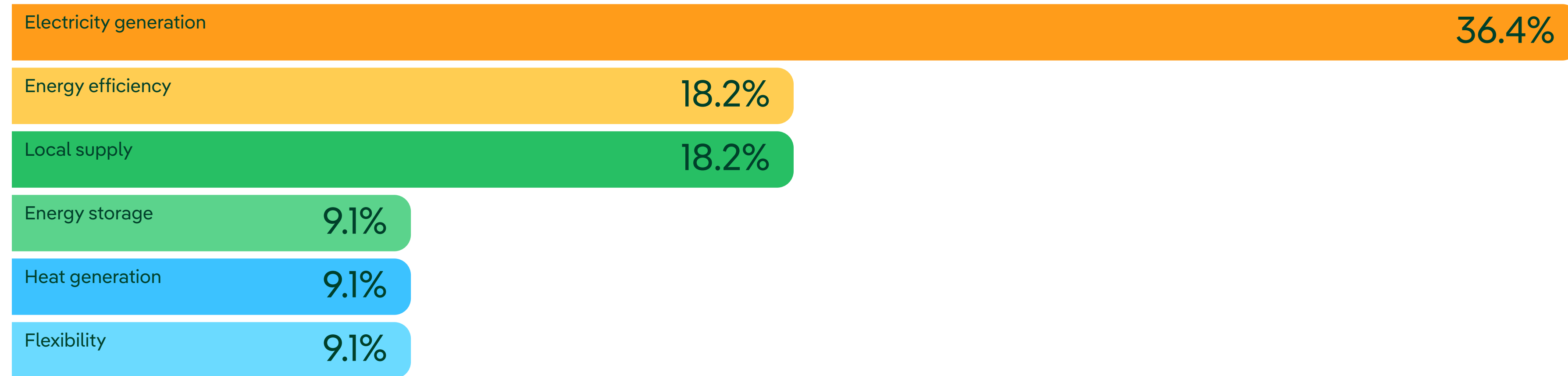
Additional Support Offered

Scan the QR Code to visit our Community Energy Page to find out more about the support and resources we offer.



“The ZCCH provides a range of resources and links which offer practical and technical advice.”

Future Plans



Case studies

Case Study (SPD): Buchanan Community Hydro



Focus:

Buchanan Community Hydro Society is a community benefit company established by Energy4All with representatives from the East Loch Lomond Development Trust.

Project:

The 100kW run-of-river community hydro scheme became fully operational on 15 July 2022 and was fortunate to achieve accreditation under the final tranche of the Feed-inTariff (FiT) scheme. In its first year, the project was able to generate 357,000kWh of clean power.

Benefits:

Buchanan Community Hydro Society pays a donation to the local community each year (increasing with inflation) and any surplus profits after payment of share interest will be available for additional community benefit. In spring 2023, the project's Community Benefit Fund awarded £23,990 to eleven local organisations.

Key Highlights:

- Successfully accredited under the final Feed-in Tariff (FiT) scheme
- Surpassed initial power generation targets by 11% in the first year
- Contributed £23,990 to local organisations.



357,000kWh

Is enough energy to power around
30 average UK homes for a year

Case Study (SPM): Energy Local CIC



Focus:

The project's focus is centred around energy local clubs. These clubs enable households to use locally generated clean power. Members pay lower rates for this green energy, while local generators receive better income. Club members are alerted when green power is abundant to optimise their use of low-carbon electricity.

Project:

Energy Local CIC was founded in Wales as an initiative that aims to decarbonise energy usage and protect communities from rising energy prices.

Benefit:

The project helps reduce energy costs for households and provides fairer income for local generators. By promoting the use of local, renewable energy, it supports community sustainability and contributes to the reduction of greenhouse gas emissions.

Key Highlights:

- Founded to combat rising energy prices
- Members pay lower rates for local power
- Generators receive better income.



“Energy Local CIC started in Wales in an effort to decarbonise and protect communities from rising energy prices.”

SP Energy Networks
Community Energy Strategy

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