



Welsh Community Energy

State of the Sector Report

2022

Produced by:



Sponsored by:



Llywodraeth Cymru
Welsh Government

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About the research:

The annual Community Energy State of the Sector survey and report has provided insight into the UK community energy sector since

2017. Alongside this UK-wide perspective, Welsh Government have funded Community Energy Wales (CEW) to produce a stand-alone State of the Sector report for Wales, following the success of the pilot report in 2021. It focuses on progress made over the last year, describes how the sector is changing and how it delivers a wide range of social and environmental impacts.

Data collection, analysis and reporting was carried out for the first time in-house by Community Energy Wales between February and May 2022. CEW, CEE and CES updated and restructured our datasets to derive as complete a picture of the sector as possible, uncovering previously unreported data. This data is included in our analysis for this year and when drawing comparisons with previous years. Any discrepancies with previously reported data can be attributed to these retroactive additions.

CEW are grateful for the contribution of the 43 community energy organisations that took the time to complete the survey. The dataset is supplemented by data gathered from previous State of the Sector surveys, and desk-based research from a further 24 organisations. The views in this report are based on State of the Sector survey and feedback from members of CEW, and do not necessarily represent the views of the report sponsors.

Community Energy Wales, in partnership with Community Energy England (CEE) and Scotland (CES), conducted this research to:

- further understand the current state of the sector;
- identify evidence-based areas of growth and opportunity;
- add to our robust dataset on the community energy sector;
- enable CEW to advocate more effectively for its members.

Community Energy Wales

Community Energy Wales is a not-for-profit membership organisation which provides assistance and a voice to community energy projects across Wales. Our core mission is to support and accelerate the transition to a fair, net zero and community-led energy system. This is based on an overarching vision that communities should not only participate in, and shape the energy system, but also that Welsh communities retain benefit from the energy transition. Join our growing network of 52 members and support the Welsh community energy sector by becoming a member.

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Take a look at our introductions to community energy, explore more information on our websites, and follow us social media. Contact us for more information:

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Headlines

A changing sector

- The community energy sector in Wales is dynamic and changing over time, centred not only on energy generation but increasingly on low carbon transport, energy efficiency, energy storage and flexibility. Given the lack of subsidy support, the business model for community-scale renewable electricity generation remains challenging. However, the sector demonstrates resilience as it extends the breadth of community projects and local innovation.
- The community energy sector is predominantly focused on small scale generation projects, however, projects such as the Ripple Energy's 2.5MW Graig Fatha wind farm in 2021 operate at a more substantial scale.

Increasing focus on energy consumption and costs

- Overall, the sector is aligned increasingly with delivering more immediate impacts for communities focused on reduced energy consumption and costs. In the context of the current energy crisis with rising prices, community energy has a role to play, as it is locally embedded and trusted within communities.

Wide range of social impacts

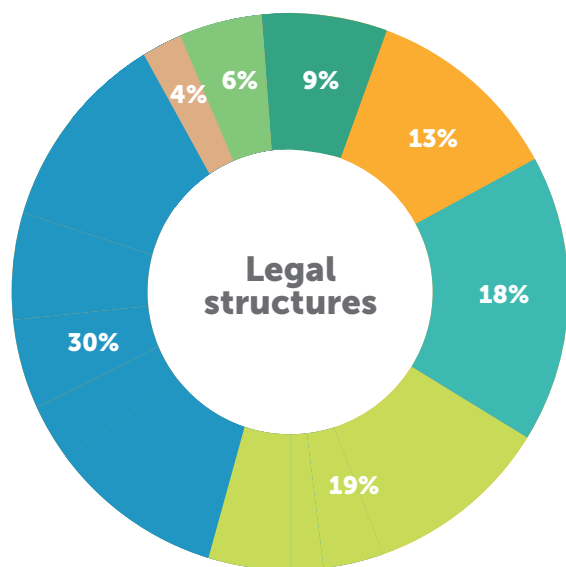
- As the Welsh community energy sector becomes more established it produces not only energy but also a broad range of social impacts.
- Community energy organisations are in a unique position for tackling climate change and community development in tandem. Community energy projects have a role in carbon reduction while also generating localised impacts around the retention of local income and capacity building. It is a model that cuts across social, environmental, economic and cultural well-being, directly supporting the goals and vision of the Wellbeing of Future Generations Act (2015).

Moving forward

- The Welsh Government is supporting the community renewable energy sector and has established targets for 1GW of renewable energy capacity to be locally owned by 2030 and for all new renewable energy projects to have an element of local ownership. Furthermore, it provides funding for Community Energy Wales directly as well as ongoing support via the Welsh Government Energy Service. The recommendations from the Renewable Energy Deep Dive in late 2021 highlighted a vision for the scaling up of resources to support community and local renewable energy in Wales as well as a commitment to improve access to the public estate for the community energy sector.
- A number of key areas were identified by community organisations to overcome barriers and enable community energy in Wales to reach its potential. Key areas included building capacity, early-stage funding, guidance with new business models and lower grid costs.



Geography of community energy



- Community Benefit Society
- CIC
- CLG
- Co-operative
- Charity
- Unincorporated
- Other

67 community
energy organisations
across Wales



2021

Community energy in Wales: overview

Broad range of activities

The survey reported total community owned electricity generation capacity of 27.5 MW, including solar, wind and hydro. The sector is diversifying and moving away from renewable energy generation in isolation and including a broad range of activities. These include more organisations engaging in low carbon transport projects – a total of 24. There is also an increased interest in energy efficiency activities, involving 20 organisations in 2021.

- 20 organisations involved in energy efficiency activities
- Community owned electricity generation capacity of 27.5 MW
- 34 low carbon vehicles owned

Volunteers: 586
Members: 8599
Total people engaged: 138,000

Engagement and communities

The survey highlighted the significance of community involvement with the sector. This was predominantly through their 8599 members and 586 volunteers. It was also reported that there was an increase in the level of engagement in Welsh communities with their work reaching 138,000 people.

Funding and employment

The survey indicated that projects not only generated renewable energy but also generated income that was local, long term and held within local communities. In total 75% of organisational expenditure was retained in the local area. Further, the survey reported that energy efficiency services resulted in £222,000 saved on household bills. In this context, the surplus income channelled into community benefit funding delivered an overall spend of £276,500 supporting local communities. In Wales, 79 new jobs were created, extending the overall FTE staff employed in community energy to 145.

Community benefit fund spend: £276,500
Money saved from EE services: £222, 250
FTE Staff: 145

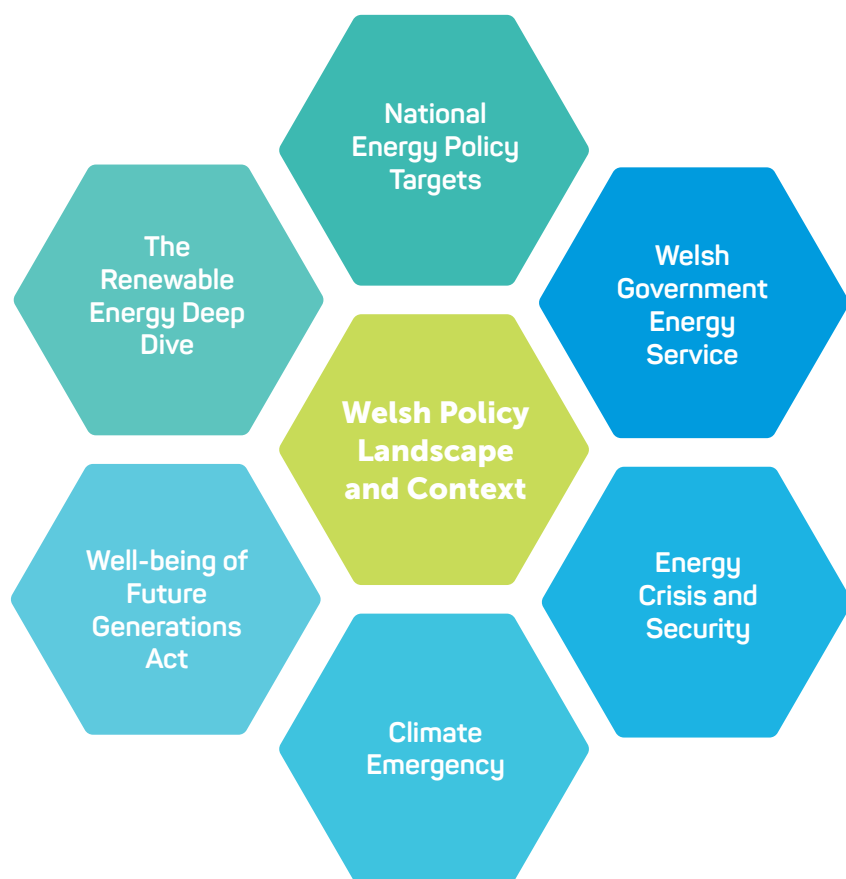
Impact

The survey indicated that Welsh community energy projects also generated a broad range of social, economic and environmental impacts, fostering sustainable communities. The results indicated the significance of community renewable projects in reducing CO2 emissions but also highlighted community owned projects developed further local support for renewable energy. Overall, partnership and collaboration were reported as a relevant social impact, particularly focused on shared learning and resources among other community projects.

- Reducing CO2 emissions
- Developing local support for renewable energy
- Local retention of community income
- Partnerships and collaboration

Welsh Community Energy in 2021
Organisations: 67

Welsh policy: landscape and context



Energy Crisis and Security

Community energy can play a significant role in the context of both the current energy security strategy and cost of energy crisis. Community ownership embeds energy within local areas, and gives local stakeholders the opportunity for a stake in their own locally-sourced energy future. It also provides a local response to community energy needs, has the potential to redistribute income within localities and, increasingly, focus on energy efficiency and help address fuel poverty.

Climate Emergency

As part of the context leading up to COP26, the Welsh Government set out its Net Zero Wales strategy to address the Welsh second carbon budget (2021-2025). This mapped the way forward in reducing emissions in response to the climate emergency, reaffirming the commitment of Welsh Government in moving away from fossil fuels to renewable energy generation. Building on this the Welsh Government have set a net zero pathway to reduce carbon emissions by 100% by 2050. As a sector, Welsh community energy has resulted in

estimated carbon savings of 12,000 tonnes CO₂e in 2021. The development of energy efficiency and education initiatives by community renewable projects are contributing to further carbon savings. In this context, community energy is not only enabling renewable energy but it is also empowering individuals to come together to tackle climate change.

National Energy Policy Targets

The Welsh Government has committed to expanding renewable energy generation by public bodies and community enterprises in Wales by over 100 MW between 2021 and 2026 as we look to meet our longer term target of 1 GW of renewable energy generation capacity to be locally owned by 2030*. This sets the scene for recognising the importance of communities in the low-carbon transition both at a national and community level.

*Written Statement: Outcome of the Deep Dive into Renewable Energy (8 December 2021) | GOV.WALES

Welsh policy: landscape and context cont.

Welsh Government Energy Service

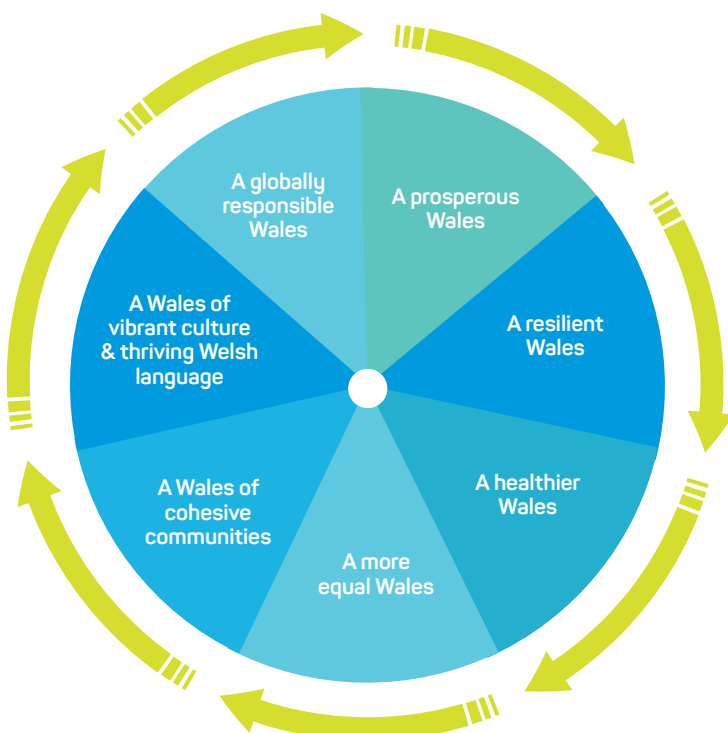
The Welsh Government Energy Service supports the community sector on renewable energy projects with technical, commercial and procurement advice. It is funded by the Welsh Government (2018-2023). They provide feasibility studies, technical assistance around grid connections as well as planning and financial modelling. Alongside these activities they provide preparatory and capital grant assistance and dedicated Development Manager support, as well as development loans via the Development Bank of Wales. A particular focus is supporting, building capacity and financial resources at the developmental stages of energy projects. The Energy Service supports local value for communities, not only in terms of renewable energy generation and carbon savings, but also nuanced benefits of local income, building skills, and confidence.

The Renewable Energy Deep Dive

The Renewable Energy Deep Dive in 2021 made a number of recommendations to scale up community and local energy in Wales as part of their ambition to maximise local ownership and retain economic and social impacts in Wales. They also included a commitment to develop Net Zero Wales public engagement and behaviour change plans to enable citizens to take action to reduce demand, improve energy efficiency and use energy in a way that supports their vision.

The Well-Being of Future Generations Act

The Well-Being of Future Generations Act (2015) is focused on addressing ongoing challenges by Wales across climate change, health issues, as well as tackling socio-economic concerns. The Act prompts public bodies to think more about the long term with a more joined-up approach. Community energy contributes towards the delivery of the WFG Act, focusing on local, social, economic, and environmental impacts. For instance, community owned energy starts a dialogue about climate change in local context to support a globally responsible Wales. The retention of local income and communities having a role in shaping the energy system leads to a more equal and prosperous Wales.

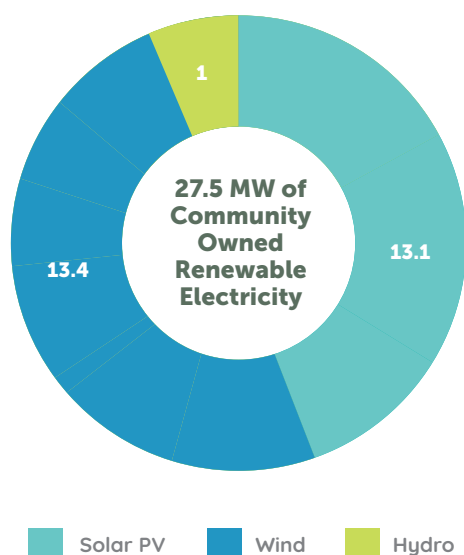


Electricity Generation

Overall, in Wales, community-owned renewable electricity generation activity was a little more positive than the wider UK picture. 2.7 MW of new electricity capacity was installed representing a capacity growth rate of 13% in 2021 - about half that reported in 2020 - resulting in a total of 27.5 MW. Despite the challenges of covid and the removal of support mechanisms such as the FIT, the sector has continued to develop and install new projects. There were 3 new installations, with a significant part of that new generation capacity in 2021 focused on Ripple Energy's 2.5MW Graig Fatha wind farm, operating at a larger scale. In addition, there were 2 smaller solar PV installations.

On a UK level in 2021 there were only 23 new electricity generation assets installed or under construction. In Wales there were 3 installations, compared to 14 in England and 6 in Scotland. The survey indicates that despite some pre-accredited projects being given extensions into 2022 due to the COVID crisis, the removal of FITs in 2019 has had a detrimental impact in Wales. This follows the wider UK and presents a challenging environment for the sector moving forward.

The total operational electricity generation capacity is represented in the diagram below, divided by the technology types: there were 10 wind, 15 solar PV, and 7 hydro projects.



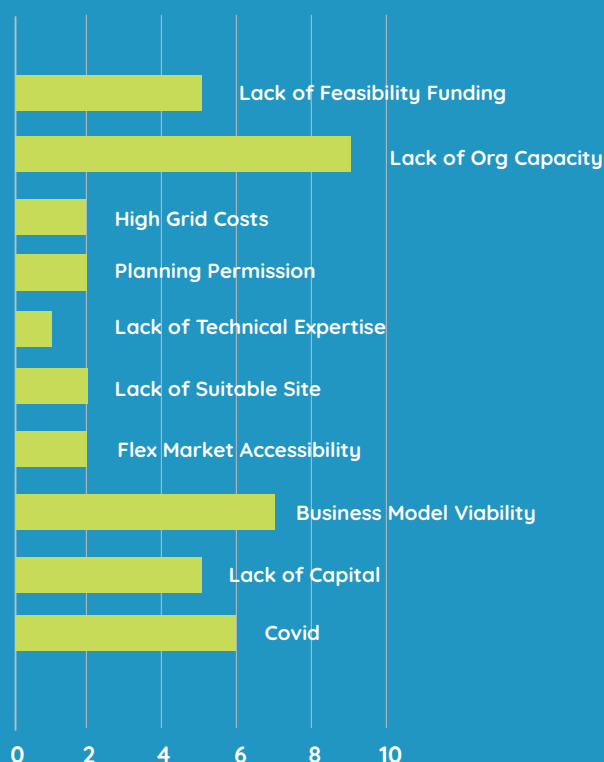
32 community organisations installed electricity generation

Saving **12,000** tCO₂e

Powering **15,000** Welsh households

The survey also highlighted a number of stalled projects with a potential capacity of 17.5 MW, across 18 organisations. The main type of stalled project was electricity generation with 11 projects, although other initiatives also failed to progress including Low Carbon Transport (2), energy efficiency (3) and energy storage (3). It is noteworthy that no projects were stalled due to public opposition. A key reason reported for stalled projects was a lack of organisational capacity, requiring a significant amount of time, commitment and energy to build new community projects. This was also positioned within a changing policy environment, with the removal of FITs resulting in lack of viable business model for new generation projects. Recent UK Government policy decisions to reduce and now remove the Feed in Tariff (FITs), Export Tariff and investment tax relief for community energy projects had a significant impact on the community energy sector. Overall, the sector remains viable with the removal of FITs and export tariff although only at scale which is challenging for community projects, due to increasing complexity and competition with larger developers.

Stalled projects: Reasons



Heat Generation

Overall, heat generation remains a challenging area for community development across the UK with a modest increase in heat generation capacity in Wales, increasing from 311 kW in 2020 to 363 kW in 2021. There are currently 4 renewable heat installations in Wales: 1 air source heat pump, 2 biomass and 1 new 52 kW ground source heat pump (GSHP) installed in 2021. The new GSHP, installed by Awel Aman Tawe, provides underfloor heating to a former school which is in the process of being renovated as an arts and education centre. The survey reflects the overarching pattern across the UK, with heat generation remaining an area with limited growth due to high capital costs to develop heat networks and a paucity of technical expertise.

4 community organisations delivering heat projects

Total 363 kW heat generation capacity

Energy storage and flexibility

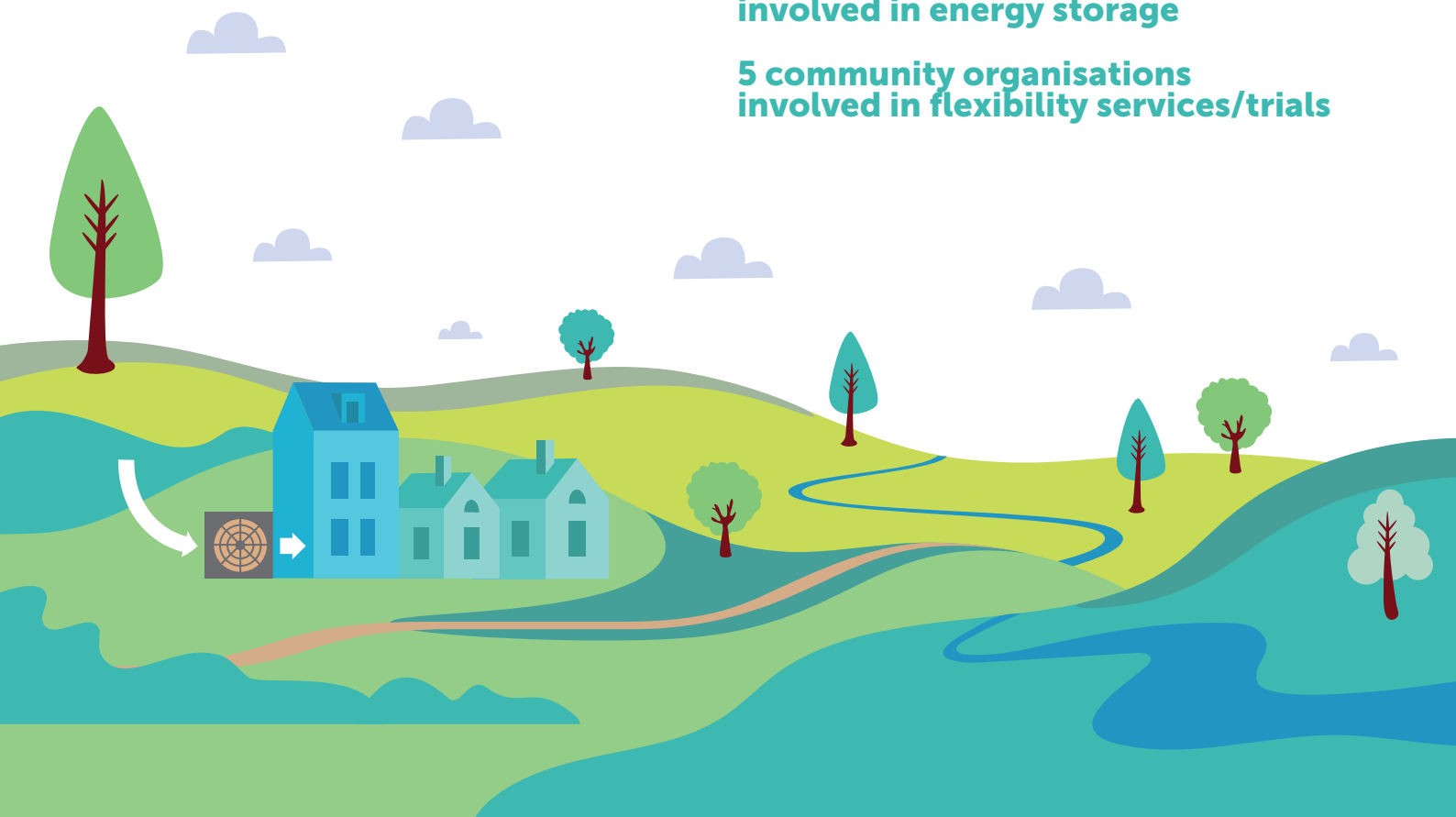
Overall, Wales had 10 organisations with energy storage projects. The storage of energy provides an important mechanism for more flexible energy systems that are smarter and enable reduced costs for customers.

Community Energy organisations have installed electric batteries (4) and hydrogen storage (2). In Wales the survey highlighted a small increase in total storage capacity by 69 kWh, increasing from 353 kWh in 2020 to a total of 422 kWh in 2021, with new storage being in the form of two electric batteries.

The survey highlighted that there were 2 organisations involved in flexibility projects or trials in 2021. There were also a small number of organisations (3) engaged in using or planning to utilise energy storage to deliver network services, such as flexibility services or demand side response. For example, in Camarthenshire, there have been 2 Energy Local Clubs developed in Llandysul and Capel Dewi. This enables local communities involved to align their energy use more closely with the production of local renewable energy, moving towards connecting local supply and demand.

10 community organisations involved in energy storage

5 community organisations involved in flexibility services/trials



2021

Low Carbon Transport

24

community organisations involved low carbon transport activity

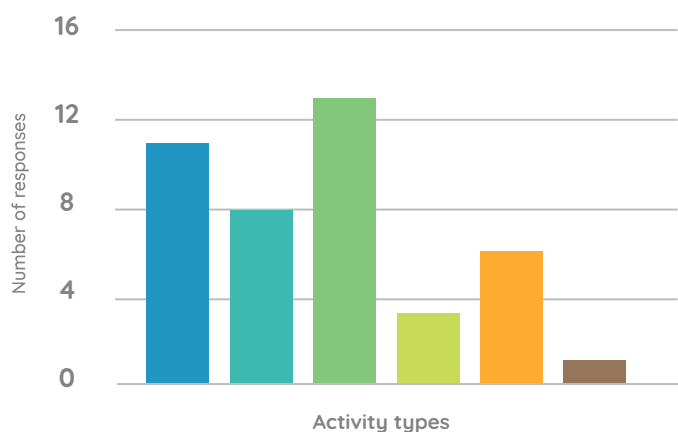
23

new EV charging points installed

Overall, the survey indicated that there had been continued growth in low carbon transport activities, extending from 20 organisations in 2020 to 24 in 2021. The total in Wales reflects its positive contribution to developing low carbon transport as part of a broader pattern in the UK, as reported in England (28) and Scotland (20) in 2021.

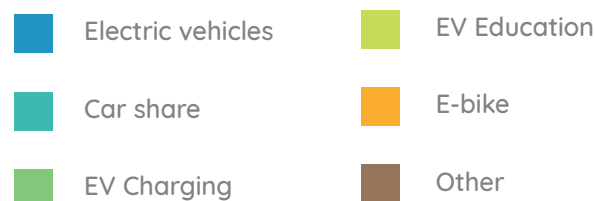
In terms of type of low carbon transport project, the survey reported a range of activities predominantly focused on electric transport (11) and EV charging (13). Other projects focused on car sharing (8) and e-bikes (6) but less activity was reported around EV education and awareness raising, and no hydrogen projects were in progress.

Low carbon transport activity



There has been growth in community-owned electric vehicles and charging points with 11 new electric vehicles purchased in 2021, an increase of nearly 50% on last year. EV charge points showed a similar profile with a 60% increase bringing the total to 62 in 2021.

Activity types



Case Study

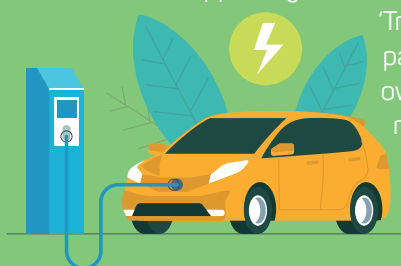
Charge up Wales

What is the project?

The project aims to establish an EV Car club network for Wales, including 7 new community owned car clubs and connect with other existing

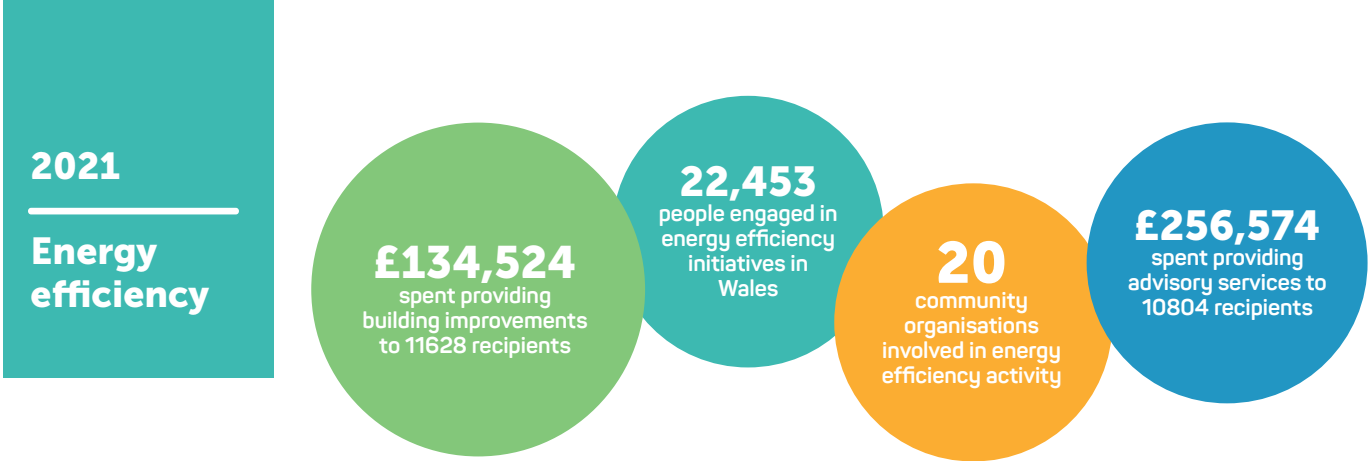
community run car clubs, as well as community organisations. The scheme has been supported by recent Lottery funding of £500,000 in 2022. It is based on an integrated approach facilitating a Wales-based network with shared learning. The community organisations act as 'hosts' for the scheme and incorporate other partnerships, such as the charities 'The Community Transport Association (CTA) Wales' and 'CoMo UK' focused on supporting shared transport initiatives. Also,

'TrydaNi' as the first pan-Wales community owned Electric Car Charging network will act to deliver and manage the charge points for the car clubs.



What is the impact?

Overall, Charge Up Wales highlights the benefits of using electric vehicles for the environment as a viable alternative to petrol or diesel cars. However, it also aims to provide a lower cost option integrated into a community context, with cars being available for use as part of an hourly, daily or longer-term option. It aims to offer a flexible alternative to owning cars and the difficulty around access to public transport in rural areas, tackling isolation and tackles the challenge of gaining access to local services, especially for those on low incomes. This is particularly important in Wales within a rural setting, providing opportunities for a more flexible range of options for local communities. As an All-Wales network, it promotes building of capacity across communities and car clubs, as well as developing shared learning to support growth.

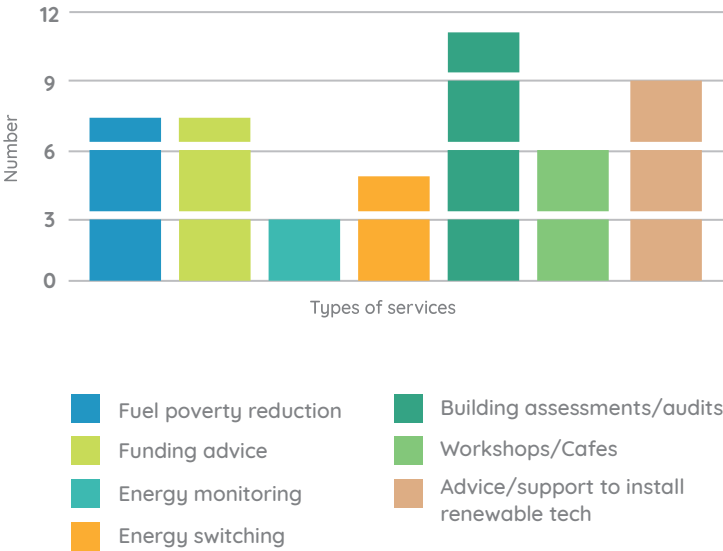


Overall, the pattern in Wales and the UK more broadly is the developing role of energy efficiency as a focus for community organisations. Organisations are looking towards energy efficiency as well as energy generation as part of their activities and social impact. In Wales this signals an increasing shift in the sector. 20 organisations are now involved in energy efficiency, up from 13. Energy efficiency activity focused on both improvement and advisory services and were largely free (10) with some energy efficiency services provided by organisations being both free and paid (4), and only 1 offering a paid service. Importantly in terms of community energy

providing a more immediate and tangible social impact there was an estimated £222,000 saved for individuals or communities through energy efficiency activities in 2021.

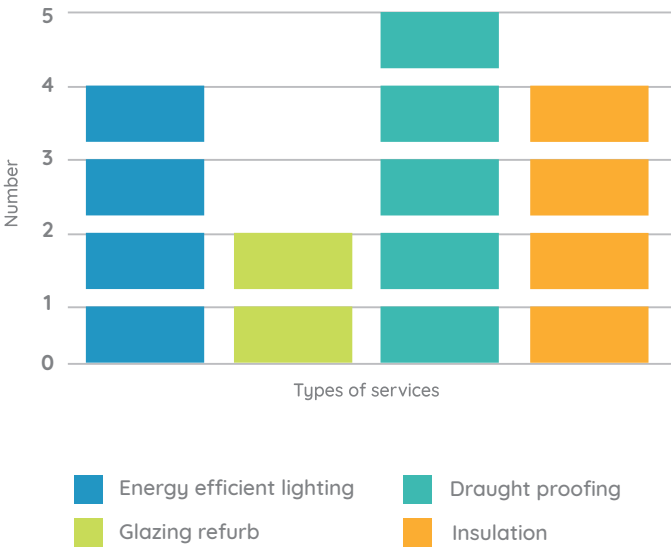
The improvement services included a range of initiatives that tackled household level energy efficiency through draught proofing, glazing, insulation and energy efficient lighting. In terms of improvement services, the most significant activities focused on draught proofing, insulation and energy efficiency lighting.

Orgs delivering advisory services



In total, community organisations reported engaging 22,453 people via energy efficiency initiatives and provided energy efficiency grants worth £80,000 to over 21 recipients during 2021, including support for building improvements, volunteer energy champions and electric emergency vouchers.

Orgs delivering improvement services



Furthermore, there was a wide spectrum of advisory services, ranging from workshops or cafes to funding advice and energy switching. The main activity was centred on building assessments/audits, followed by advice and support for installing renewable technologies and funding advice and fuel poverty reduction.

2021

Energy efficiency

595

low energy LED bulbs
have been exchanged
– a saving of £96,390
over 12 years

7890

minutes/132
hours of energy
advice

246

applications for
the Warm Home
Discount – a
saving of
£34,440

97

draught-proofing
snakes given
out for free

1037

members of the
community engaged
by energy projects

“

With support from the Big Energy Saving Network and Western Power Distribution we will continue into 2022 to give general energy efficiency advice and to conduct domestic thermal imaging surveys to enable behaviour change.

”

“

Provided advice through
employing an Energy Champion
(Citizen's Advice 'Big Energy
Saving Network').

”

“

Through the Anafon energy
efficiency scheme, the charity
Anafon had invested £21,747 to help
with housing improvements in
Abergwyngregyn, through the Joint
Energy building assessment service.

”

Welsh Sector voices on
energy efficiency activities
focused on advisory services
and building assessments

Case Study

Y Dref Werdd

What is the project?

The Y Dref Werdd project focuses on the Bro Ffestiniog area, supported by the Big Lottery grant funding. The project team are drawn from within the community and work with local people by building an understanding of what local needs are. For instance, in the Tanygrisiau area which has no access to mains gas, local residents use open fires for heat and housing association properties are heated through inefficient storage heaters.



What is the impact?

Y Dref Werdd is actively responding to local fuel poverty as a major issue for the community. It does this through the Drop-in centre which provides an accessible point of contact, signposting support and providing tailored energy efficiency and energy saving advice. This enables local people to have support every week on a Monday, Wednesday and Friday from 10am to 4pm. The project has piloted a local in-house energy advice which targets local fuel poverty, supporting people that are eligible for Welsh Government schemes such as the Warm Home Discount and Nest.

Y Dref Werdd also provides emergency vouchers for people with pre-paid meters and promotes energy saving advice, including a range of innovative initiatives such as local workshops creating draught proofing snakes, and offering a free 'bulb swap' scheme that replaces old bulbs for energy efficient LED bulbs.

Overall, Y Dref Werdd aims to work with 400 families during the project and has developed a range of social impacts. It highlights how community energy can deliver immediate and tangible social impacts for communities in reducing energy consumption and costs. It also delivers less tangible social impacts by engaging people and developing their trust and confidence in community projects. It may be increasingly important in supporting local communities with the developing energy crisis.

2021

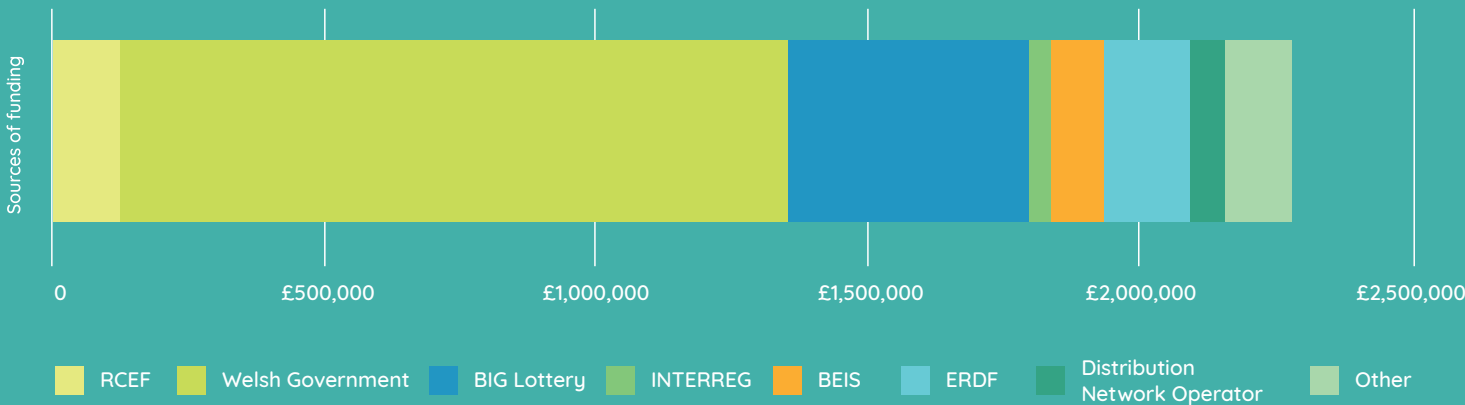
Funding & Finance



Overall, there was £2.3m of development funding received by organisations in the sector in Wales. It is noteworthy that the main component of funding is received through Welsh Government amounting to £1.2m in 2021, representing 54% of the total development funding. In addition, funds were also received from the Big Lottery totalling £443, 170 as well as smaller amounts from other funding sources. This includes from the European Regional Development Fund (ERDF),

INTERREG and the Department for Business, Energy & Industrial Strategy (BEIS). In a comparative context, Scotland also received a significant degree of funding through the Scottish Government's Community and Renewable Energy Scheme (CARES). In England there was a greater amount of funding from a more diverse range of sources, including a higher level of funding from local authorities and the Rural Community Energy Fund.

Development funding



Investment Types



Overall, there was £4.3m of investment into the community energy sector in Wales in 2021. Investment came from two primary sources - share offers (which raised £2.3m) and grants (worth £1.3m). Other funding routes were through self-funding (£477k) and loans (£11.5k). There were no community bonds issued in 2021. Importantly, the development of the Morlais project as part of Menter Mon represents a significant increase in grant funding within Wales in 2021, which is not included in the graph as it accounts for a discrete project with an additional £30 million of grant funding. It is focused on an innovative tidal energy project that has attracted a substantial scale of investment.

Economic impact from Welsh community energy

145
full time jobs

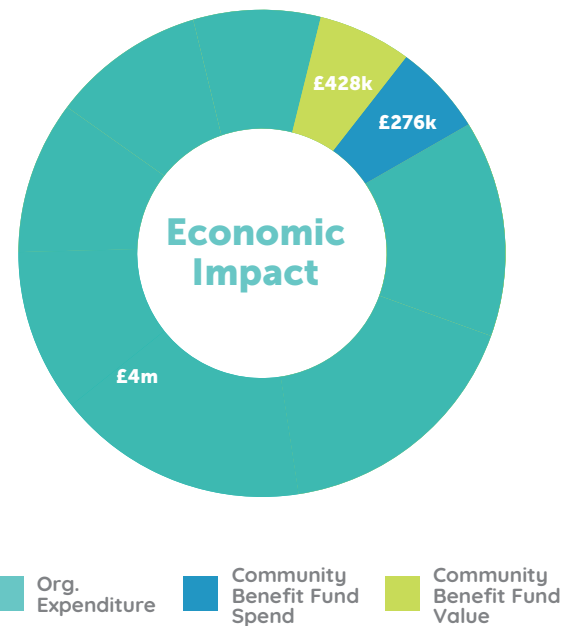
79
new full time jobs
created in 2021

75%
expenditure
retained
locally

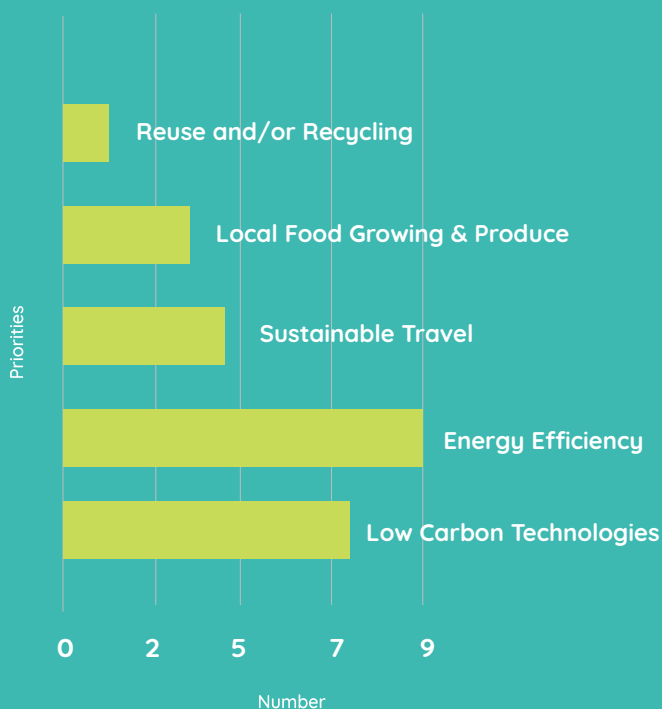
79 new jobs were created in the community energy sector in Wales in 2021, increasing the overall FTE workforce to 145. This significant increase in employment includes Menter Mon with 15 FTE and Ripple Energy whose 21 FTE are not all based in Wales as it is a UK organisation.

The survey highlighted significant economic value available to communities from community energy schemes, providing a boost to local economies. In Wales, the total organisational expenditure was estimated to be £4 million in 2021, and importantly 75% of this expenditure was retained locally.

One key vehicle for channelling local community benefit was through community benefit funds. As the sector becomes more established there is increased focus on delivering social impacts through surplus income. The value of community benefit funds in Wales was £428,000 in 2021 and the total community benefit spend was £276,000. This represents a slight increase in 2021 compared to 2020, highlighting how the sector is addressing local community needs.



Community Benefit Fund priorities



There were a range of community benefit fund spending priorities for 2021 focused on a number of targeted areas for social and environmental impact. The most significant were energy efficiency (9) and education activities around low carbon technologies (7). Other priorities included promoting sustainable travel (4) and local food growing (3).

With the current energy crisis, community energy projects at a grassroots level are well positioned to respond to community needs and play a role in tackling fuel poverty alongside generating renewable energy. Community benefit funds are a mechanism for delivering a wide range of local sustainability initiatives. They also help address the WFG Act (2015) by increasing local awareness of low carbon technologies and promoting sustainable travel. In a similar way, moving towards community led and owned energy projects also prompt conversations about local food growing and produce, highlighting a whole system approach towards sustainable Welsh communities.

Case Study

ECODYFI

Community funds for impact



What is the project?

In the Dyfi Valley there are multiple pathways for impact from the surplus income of Bro Dyfi Community Renewables (BDCR), which owns community led wind turbines near Machynlleth. BDCR was the first community energy scheme in Wales in 2001. The funding provision is channelled through supporting the local regeneration organisation Ecodyfi and the Dyfi Community Energy Fund, which provides grants to groups in the local community. Overall, these provide local mechanisms to deliver community benefit by channelling financial support to a wide range of local sustainability initiatives.

What's is the impact?

Areas of impact from Ecodyfi focus on Energy Local Machynlleth, the Outdoor Health project and the Machynlleth Repair Café. The café facilitates the repair of household technologies and reduces waste, whilst saving money for local people. Also, the Outdoor project encourages the community to engage with an active lifestyle through accessing the natural environment in the Dyfi Biosphere area. Ecodyfi is facilitating the start-up of Energy Local clubs, such as Energy Local Machynlleth. Electricity is cheaper when there is hydro generation and at times of lower demand, thereby reducing bills, emissions, and the need for grid reinforcement.

The Dyfi Community Energy Fund provides support to projects that tackle carbon emissions and climate change in the Dyfi Valley, particularly those that benefit low income households. Funding up to £1,000 is available (although larger amounts are considered) in areas such as energy efficiency and renewable energy for community halls, sustainable transport and well-being.



Social impact from Welsh community energy

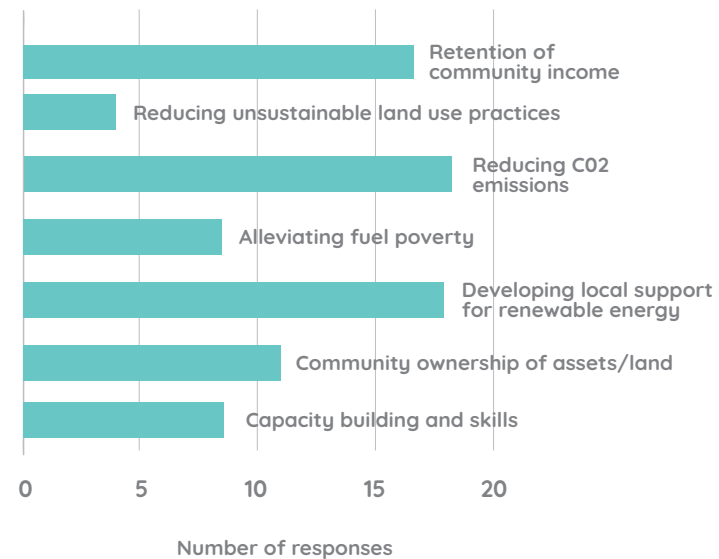
A key social impact reported was a wider level of active engagement with Welsh communities by community energy organisations reaching 138,000 people. Importantly, 23 organisations engaged with communities in the medium of English and Welsh. This increased accessibility and enabled people to connect to community

projects in a bilingual dialogue around climate change, renewable energy and community benefit, embedded in their local communities, landscape and language.

The survey indicated the impactful nature of community energy projects in Wales, as they generated a wide range of social impacts. The survey respondents reported high impacts around reducing CO2 emissions (18), developing local support for renewable energy (17) and the local retention of community income (16). At a somewhat lower yet significant level was building community ownership of assets-land (11), alleviating fuel poverty (8) as well as capacity building, skills and educational activities (8).

Perceived social impacts focused on both global and local contexts, tackling climate change and use of renewable energy technology. There was also attention to the importance of local income and building community ownership and capacity.

Reported high impacts



Welsh sector voices around the wide range of social impacts

“

Raising awareness of Climate Change and possible actions and benefits.

”

“

Local ownership of assets (buildings, land plots) for community benefit.

”

“

Employment; Support to businesses and community facilities; Community resilience and cohesion; community-based biodiversity and natural resource management; social enterprise development; not an exhaustive list!

”

“

Awareness of the energy market, energy efficiency and STEM subjects.

”



Case Study

ENERGY WARRIORS

Renewable energy and climate change education

What is the project?

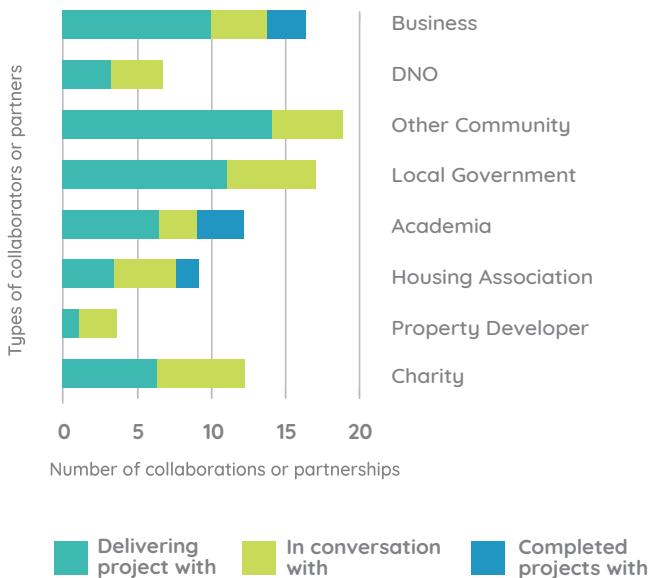
The 'Energy Warriors' project focuses on learning about and taking action on energy and climate change. In addition to installing rooftop solar on 44 schools in South Wales, Egni Co-op has developed a vibrant educational programme in partnership with Energy Sparks, aiming to reduce their school's carbon footprint even further.

What is the impact?

The educational activities focus on increasing awareness within schools around energy use and climate change, supporting learning around the new Curriculum for Wales 2022. Educational activities utilise actual data from the Energy Sparks platform which allows school children to identify a change they want to see such as turning the lights off or turning the temperature down, monitoring the change through the data. The work of Energy Warriors is multifaceted and involves shaping campaign messages creatively through working with the bilingual artist Sion Tomos Owen and rapper Mr Phormula. Energy Warriors work to find the solutions, raise awareness and take climate action – energy use has decreased in schools taking part, therefore reducing carbon emissions and engaging children in their learning as committed ethical and informed citizens.

Partnerships & collaboration

New collaborations & partnerships



The survey highlighted 25 organisations reporting partnership working with a range of organisations and sectors. Some groups reported actively delivering projects in partnership with other community organisations (14), local government (11) and local businesses (10). Others reported being in conversation with these partners to establish the parameters of new relationships. There were a small number of completed projects with partnerships in academia (2), business (2) and housing associations (1).

The survey highlighted the different types of support received from partners as well as how important the support was to community energy projects. These focused on technical and financial support as well as access to networks and information and sites. Local government, other community organisations and charities were reported as highly important in providing technical support. In order to secure financial support, key external partners were businesses and local government as well as the charity sector. Significantly, local government, other community organisations, charities and housing associations enabled access to networks and a flow of information. Housing associations and local government were viewed as the main collaborators in accessing sites.

Welsh sector voices around partnership working and collaboration

“Our organisation currently covers a range of projects with a wide variety of the community. A key benefit is community building and bringing existing community groups and projects together.”

“Our organisation as well as developing our own projects is also currently supporting two other community energy organisations with their projects.”



“Facilitate cross-sector discussions as a way of finding solutions and opportunities. For example between a private housing landlord and Energy Local.”

Case Study Cyd Ynni consortium

Partnership working and collaboration

What is the project?

Cyd Ynni represents a local network for community renewable energy projects which brings together a hub of activity in North Wales, funded by a 'Big Lottery' grant. As a consortium it provides a platform to develop capacity and capability within Welsh community renewable energy by creating opportunities for shared learning and vision across five projects. This builds on their individual success to sustain action and maximise collective action and impact to support locally sustainable communities.

What is the impact?

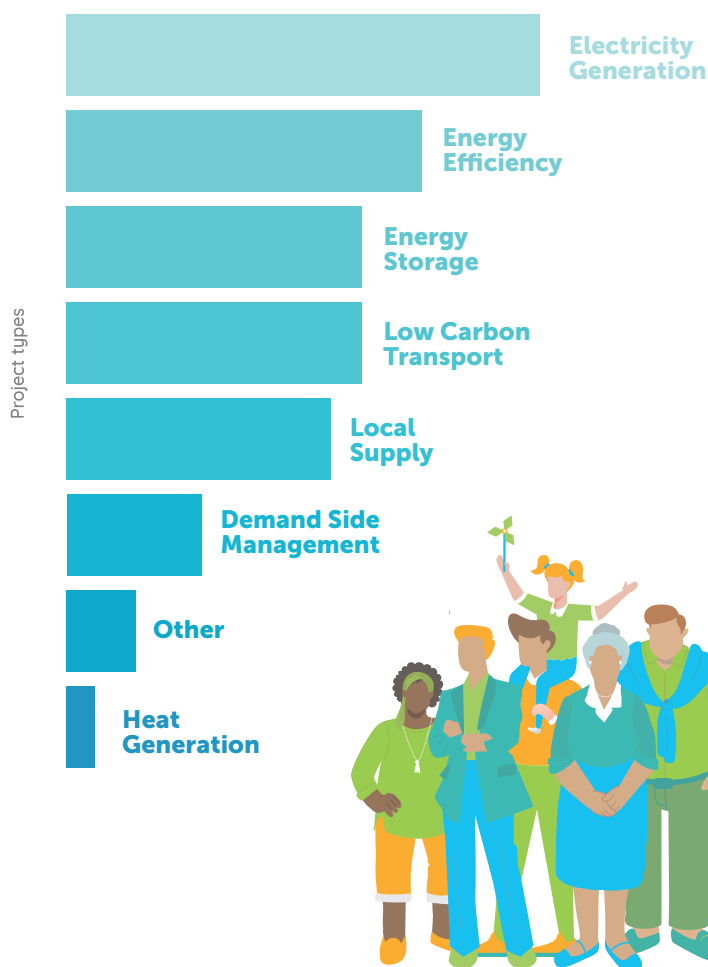
Cyd Ynni provides a supportive framework for collaboration across these community renewable energy projects including the creation of two posts to deliver current and future energy projects. It provides a platform for discussion and space for the knowledge exchange steering groups. It also acts as a springboard for shared learning and capacity building where groups are at different stages of development. For example, a more established project supported the establishment of community charities for other energy groups, facilitating them to navigate the process.

Local Innovation

Overall, the responses from the survey highlighted a dynamic sector in Wales, with organisations reporting a wide range of initiatives and activities. Although the sector has experienced a challenging period, including the removal of Feed in Tariffs, it has demonstrated both adaptability to change and resilience with new innovative projects moving forward.

The survey identified a number of key areas that were planned for 2022. The area of electricity generation (17) was important, but there was also greater diversification, with energy efficiency (12), energy storage (10) and low carbon transport (10) reported as future project areas. Furthermore, the survey identified the relevance of local supply (9) and demand management (4), although there was still only a limited focus on heat generation.

Future plans



Welsh sector voices around long-term plans

“

Extend our solar project to include increased capacity on public buildings. Consider greater collaboration with local businesses.

”

“

Demand management-flexibility. Working with a network of other organisations to roll out local energy markets.

”

“

We expect to receive two electric car club vehicles and an electric cargo bike.

”

“

Moving away from renewable generation to energy efficiency and land management.

”

Taking a longer-term view, community energy organisations outlined a number of potential priority areas. Extending the range of locations of PV generation within local communities was seen as important, including targeting community buildings and businesses. Other long-term plans cut across a range of activities and impacts, extending from energy efficiency, energy saving advice and insulation. There was also an emphasis on demand management based on energy local clubs as well as low carbon transport centred on EV cars, bikes and charging points. Across these areas community energy organisations aimed to provide enhanced social impacts and community development for local communities in Wales, such as retaining money in the local

economy, providing educational tools on energy use and bringing people together in collective action on climate change.

Overall, community energy in Wales has demonstrated resilience and adaptability in driving forward a low-carbon future, importantly not only generating renewable energy but also fostering sustainable communities through local innovation. This focused on alleviating fuel poverty, the promotion of low carbon transport and demand management, acting as a local catalyst for change within communities of Wales.

Moving forward



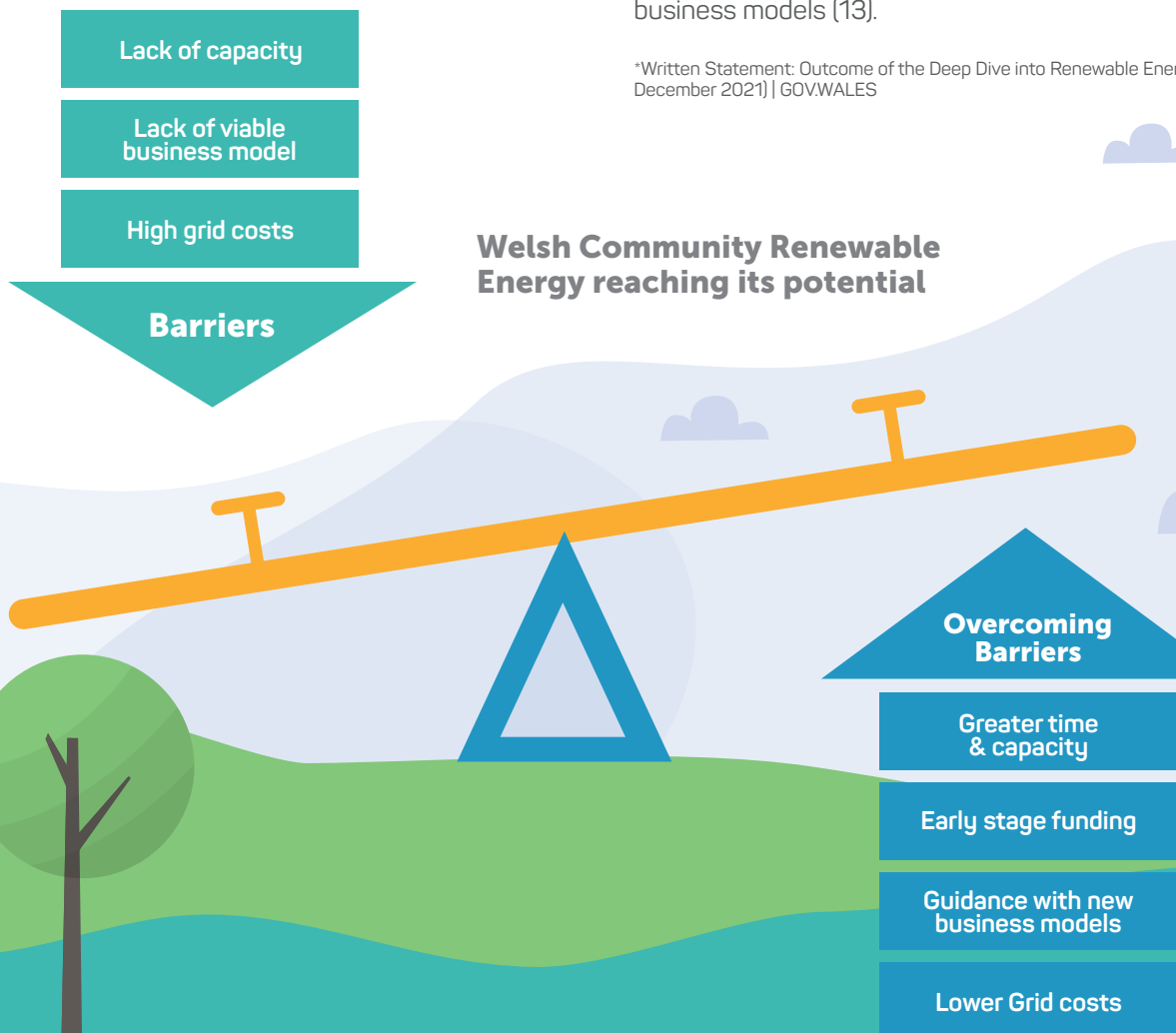
The Welsh Government has committed to providing ongoing support for community renewable energy. This is demonstrated through funding for the Welsh Government Energy Service, Community Energy Wales and YnNi Teg, and Development loans through the Development Bank of Wales to support their target of an additional 100MW of community and publicly owned energy by 2026*.

The Renewable Energy Deep Dive strategy in 2021 provided a platform for moving forward and highlighted a vision for scaling-up and the role of citizens in renewable energy generation and demand.

For community energy in Wales to build on its strengths and a supportive policy environment, community organisations identified a number of targeted areas for support to overcome barriers. As illustrated in the diagram, community organisations highlighted how having sufficient time and capacity (20) was a barrier. The absence of the Feed in Tariff was seen as impacting on the scale and viability of the business model of community projects. An additional barrier was the high level of grid cost (12). However, community organisations also focused on a number of key areas to overcome barriers which could enable community energy to reach its potential. These centred on the importance of addressing time and capacity (19) for community energy project development and access to early-stage funding (18). Other factors focused on lower grid costs (14) and guidance to develop new business models (13).

*Written Statement: Outcome of the Deep Dive into Renewable Energy (8 December 2021) | GOV.WALES

Welsh Community Renewable Energy reaching its potential



Moving forward cont.

What is needed

- The active involvement of Welsh communities through engagement in behaviour change, energy advice and retro-fit aligned with the objectives of the Deep Dive vision (2021) and a Net Zero Wales.

- The Deep Dive recognises a wider range of co- benefits from renewable energy which is encapsulated by the community energy sector. This should include a focus on recognising how community energy addresses the objectives of the WFG Act (2015) delivering added value alongside energy targets.

Building capacity and early-stage funding

- Expanding the support available to community energy organisations through the Welsh Government Energy Service to include energy efficiency, sustainable transport and renewable heating

- Consolidate the growth in capacity of the sector in Wales, building on the increase in funding from Welsh Government to Community Energy Wales and YnNi Teg. YnNi Teg is a community energy development service set up to scale up the capacity of the sector and deliver more complex projects.

- The development of regional peer support for community energy projects, similar to the Cyd Ynni consortium, based on providing staff, coordination and shared learning to support capacity building. Such initiatives would build upon local informal networks, with newer schemes benefiting from the experience of more established projects.

Guidance with new business models

- The area of non-domestic rates has been identified by community organisations as an area for further consideration and currently Welsh Government are committed to exploring the use of non-domestic rate relief to support local and community energy generation. Providing certainty in this area would help support the viability of community energy, reducing operational costs and increasing community benefit.

- The Renewable Energy Deep Dive explores a number of options, including using the buying power of the public sector in Wales, to provide reliable pathways to market for community and public sector energy projects through long term Power Purchase Agreements. This could help develop an environment of certainty for projects by securing a minimum value for selling energy helping to attract investment.

- A focus on greater access to public sector land or buildings to develop renewable energy projects by either public bodies or community energy organisations would help create more opportunities for community energy projects.

Lower grid costs

Although grid issues are not devolved, a number of broader considerations have implications for Wales:

- To facilitate the development of community renewable energy by deferring the initial costs attached to grid connections, providing a longer-term programme of payment, thereby securing grid capacity for community renewable energy projects.

- Rather than focusing on large-scale organisations, there is a need for increased accessibility to national funds for innovation administered by UK government and Ofgem.

- In a Welsh context, the Deep Dive Renewable Energy strategy identified a continued engagement with Ofgem to map Wales's investment requirements centred on value being retained in Wales. This includes exploring flexible grid connections for renewable energy and storage.

- A continued focus on reducing energy demand on the grid, whilst also benefitting households in Wales through lower energy use and costs. Moving forward centres on developing local solutions that enable the balancing of local supply and demand which is currently only possible through innovation programmes.

- Supporting the Local Electricity Bill which is yet to become law, would enable local generators to become local suppliers. This would be impactful in delivering local value for communities and help in addressing climate change.

About us

We invite all organisations working on or supporting community energy to join us, to strengthen our collective voice and enable us to represent you in our work to develop and support the sector. Details of how to join us can be found below.



Community Energy Wales



Ynni
Cymunedol Cymru
Community Energy
Wales

Community Energy Wales is a not-for-profit membership organisation which provides support to community energy organisations.

Join our growing network and support the Welsh community energy sector by becoming a member. Help keep the benefits from the energy transition in Wales and our communities.

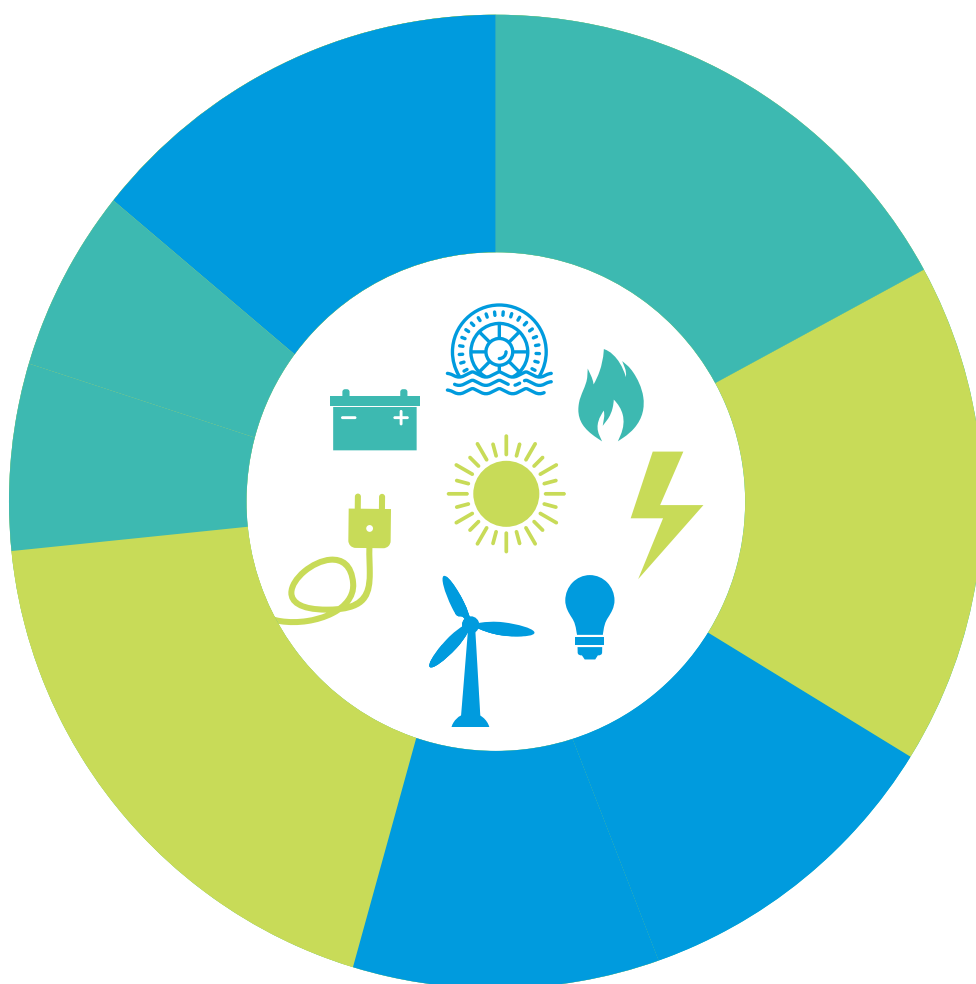
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Welsh Community Energy

State of the Sector Report

2022