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# Community Energy State of the Sector 2019

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Insights, Opportunities and Challenges in a Changing  
Community Energy Landscape





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# Foreword

Photo Credit: Adriano Figueiredo, Low Carbon Hub

We are pleased to welcome you to our third State of the Sector Report. Our great appreciation goes out to everyone who took the time to participate and to Scene for producing this report.

2018 was a year of uncertainty and challenge. With changes to Feed-In Tariffs and the increasingly unpredictable nature of UK politics, it is little wonder that it was the toughest year yet for community energy, with new generation capacity falling steeply in comparison to previous years. This combined with the IPCC's stark findings that we only have 12 years to take drastic action on climate change makes it increasingly clear we are in the midst of a climate emergency.

This report highlights how community energy organisations are working on innovative solutions to take action on the climate crisis, through a greater focus on energy efficiency and awareness-raising as well as investigating electrifying transport, flexibility services, demand side response, local energy supply and peer-to-peer (P2P) trading.

As the energy network transitions towards a smarter, more flexible, low-carbon and, hopefully fairer system, community energy will play a key role in providing energy resources, services, and mediating between energy networks and communities.

Our sector has achieved huge success in a challenging environment through our passion and commitment. By continuing to build strong partnerships with stakeholders and working collaboratively we will play a key role in responding to the climate crisis whilst creating thriving, fairer and sustainable communities. Despite an increasingly uncertain future, together we can ensure a unified voice and vision for community energy.

## From our Funders

Our energy landscape is evolving at pace as the global community takes action on climate change. To meet UK government carbon reduction targets, the way we generate, distribute and use energy is changing.

At SP Energy Networks our stakeholders have told us it is important to them that we keep them informed on changes in the decarbonisation agenda, so we are focussing heavily on creating a platform to support and promote opportunity to our stakeholders on this pathway to decarbonisation. We are committed to helping guide our stakeholders through the industry changes and helping all communities benefit from the innovative solutions currently being developed.

As we move towards a network with a greater reliance on local energy management we see local government as a key driver in the move towards a low carbon economy. By ensuring alignment of objectives between local communities, local authorities, private enterprise and ourselves we are dedicated to delivering the transition to the network of the future in an effective and efficient manner.

SP Energy Networks is already leading the way for the UK energy sector in developing the strategy for connection of homes of the future as well as supporting the roll-out of electric vehicle charging points.

We will continue to drive commercial innovation in the industry and respond to the opportunities that are created by the growth in demand and supply from low carbon technologies, facilitating more opportunities for our stakeholders to successfully achieve their decarbonisation plans for the future.

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# About this Research

## Research Aims



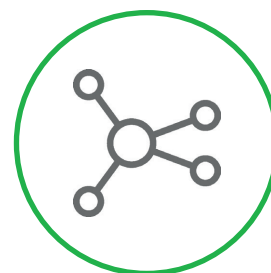
### Understanding the Sector

An understanding of the nature, extent and impacts of the community energy sector is an essential first step towards improved and effective support for the sector. The annual State of the Sector Report is the most comprehensive ongoing review of community energy in England, Wales and Northern Ireland and provides essential information and data for the benefit of the entire sector.



### Improving Support

In a challenging period for the community energy sector, the State of the Sector Report is designed to investigate barriers and opportunities for community energy organisations. The evidence base provided by the report will be used to advocate for a more supportive policy landscape for community energy across local, regional and national levels.



### Data for Wider Impact

Community Energy England and Community Energy Wales are committed to supporting wider research which is of benefit to the community energy sector. The State of the Sector 2019 Report aims to reduce the research burden on community energy organisations by providing publicly accessible data for organisations and researchers seeking to further understand the sector.

## Project Partners

The Community Energy - State of the Sector Report is managed and funded by Community Energy England and Community Energy Wales. The State of the Sector Report forms a core part of both organisations' work and will support their activities and advocacy for the community energy sector throughout 2019.

The research was further funded by Scottish Power Energy Networks and conducted by Scene Connect between January – April 2019. Scene is a community energy focused social enterprise based in Edinburgh and has conducted the State of the Sector research since 2017.

This year's report has been supported by the first regional Community Energy - State of the Sector reports conducted by Electricity North West and UK Power Networks.

Essential to the success of this research is the support, time and input of community energy practitioners across England, Wales and Northern Ireland. In total, 167 community energy organisations responded to the 2019 State of the Sector 2019 survey, with data previously provided by a further 108 organisations also included within this report.

Further to this, there are a number of key organisations whose work has played a huge part in the community energy sector to date, including Energy4All, Communities for Renewables, Low Carbon Hub, Community Energy London, Community Energy East, Community Energy South, Energy Saving Trust and Regen. These organisations have helped to improve the reach and impact of the State of the Sector Report over the previous three years.



## Community Energy in 2018

2018 was a year of uncertainty and challenge for the community energy sector. Most notably, changes to the Feed-in Tariff had negative impacts on the deployment of new onshore renewables. Combined with a restrictive planning environment - particularly in England - and ever more marginal revenue streams, community energy organisations were found to be struggling to make low carbon business models work.

Alongside these new challenges, a number of new opportunities are arising in the energy sector. How we buy, sell and manage energy will change as the energy system transitions towards a smarter, more dynamically managed network. As a key player at the local level, community energy organisations are seeking – and should be supported – to innovate. Identifying and securing innovation opportunities will bring benefits to the energy system, as well as proven impacts at the local level.

Throughout 2018 there were calls for improved support for the community energy sector, including:

- Greater recognition of the value of communities in the energy system.
- Greater policy support for new community energy projects and business models.
- More ambitious environmental leadership from national and local government.
- Improved guidance and funding to enable communities to explore innovative low-carbon opportunities.

Whilst the community energy sector was hit hard in 2018, it continues to show resilience and the capacity to deliver far reaching and impactful benefits in communities across the surveyed regions.



## A Changing Sector



### Subsidy Support

2018 saw continued reductions to the Feed-in Tariff, which provided support for small to medium scale renewable energy generation. In December 2018, the Department of Business, Energy and Industrial Strategy (BEIS) formally announced the closure of the Feed-in Tariff and Export Tariff to new applications from 31<sup>st</sup> March 2019, which will impact the viability of many community renewable energy schemes.



### Energy System Transition

The energy network is in the process of transitioning towards a smarter, more flexible system. Distributed generation, as well as increasing uptake of energy storage and electric vehicles, means the energy network must be managed in a more interconnected and flexible way. Community energy can play a key role in providing energy resources, services and helping to mediate between energy networks and communities, although barriers are arising due to charging reforms taking place.



### Innovation

Communities remain at the forefront of innovation across energy generation, management and use. Falling technology costs and increasing digitisation are providing new avenues for energy innovation, including local and peer-to-peer energy supply, demand-side response and grid flexibility services. This drive to innovate is also increasingly reflected in community energy business models, as community energy organisations seek new means of deriving value from energy projects and delivering benefits at the local level.

## A Year of Change

Very few new community energy projects were developed in 2018. These projects were limited to small scale generation and were found to focus increasingly on energy efficiency and community engagement. The decrease in projects was found to be linked to changes and uncertainty around energy policy, subsidies and regulations, as projects became increasingly marginal over the course of the year.

In total, 7.9 MW of electricity generation was installed in 2018, with heat generation limited to four new projects. Energy efficiency was found to have become an increasing focus, with 92 community energy organisations actively working to raise low carbon awareness and improve energy efficiency in their local areas.

2018 also saw an increasing trend towards innovation, with 33 organisations involved in energy storage projects and 29 investigating low carbon transport. These projects were often related to local supply models, flexibility services, demand side response and non-traditional business models.

The challenges faced in 2018 were reflected in growing calls for improved support for the community energy sector. The Community Energy Manifesto<sup>1</sup>, launched in February 2019, called on the government to better recognise its role in meeting the UK's aim for a low carbon energy system. The report suggested ways in which the government could change its approach and help local energy projects to thrive and achieve their full potential, including creating new routes to market for community supplied energy.



**7.9 MW**

**Electricity Generation**  
Capacity Installed



**144 kW**

**Heat Generation**  
Capacity Installed



**33**

**Communities involved in**  
**Energy Storage Projects**



**29**

**Communities involved in**  
**Low Carbon Transport Projects**



**92**

**Communities delivering**  
**Energy Efficiency projects**

<sup>1</sup>[www.green-alliance.org.uk/community\\_energy\\_manifesto.php](http://www.green-alliance.org.uk/community_energy_manifesto.php)



## North Kensington Community Energy

Supported by umbrella group Repowering London, North Kensington Community Energy launched its first community-owned renewable energy enterprise in 2018. The project comprises an 86 kW-peak solar panel system, installed across the rooftops of 2 primary schools and a local community centre.

Over its 20-year lifetime the solar panels will generate a community fund of £28,000, used for the benefit of local groups, to support educational initiatives, work experience, and more. The project was made possible by 149 local investors, including 2 charity groups, who will receive a share of their investment on an annual basis. Established energy co-operative Brixton Energy and the Esmée Fairbairn Foundation also supported North Kensington Community Energy with short term loans to enable installation before the March 2019 Feed-in Tariff scheme closure.



## Community Owned Renewable Energy (CORE)

Community Owned Renewable Energy (CORE) Partners is a £40m investment programme funded by Big Society Capital and Power to Change. In partnership with community energy organisations, it acquires solar assets across England, to be restructured for community ownership and income. In January 2017, CORE acquired a 5MW solar farm near Plymouth on behalf of Yealm Community Energy, which generates enough renewable electricity to power 2000 homes. Within 3 years, Yealm will take entire ownership of the project. Over its lifetime the solar farm is expected to generate approximately £1.4 million for its community-owned fund and has already distributed £20,000 to local causes. CORE's latest investments include three solar farms located in Shropshire, Kent, and the Isle of Wight with a combined capacity of 12MW. The refinancing of these farms is expected to provide at least £700,000, £1.2m, and £360,000 in community investments, respectively. It is predicted that £2m of surplus profits from the farms will be distributed locally over the next 20 years.



## BEIS - Local Energy Hubs

Developing throughout 2018, Local Energy Hubs across 5 regions of England form part of the UK Government's Clean Growth strategy, supporting regional authorities to play an active role in delivering clean growth in the UK. Since many of these changes to the energy system will be made at a local level, the programme aims to help communities better understand and develop projects in response to these future opportunities and challenges.

The objectives of the hubs are: to increase the number and quality of local energy projects; boost awareness of local energy opportunities; support localities to attract finance for clean energy projects; and develop business models to ensure financial sustainability for the future.

There are currently 5 Local Energy Hubs across Britain, covering: The North West; the North East, Yorkshire and Humber; the Midlands; Greater South East; and the South West.



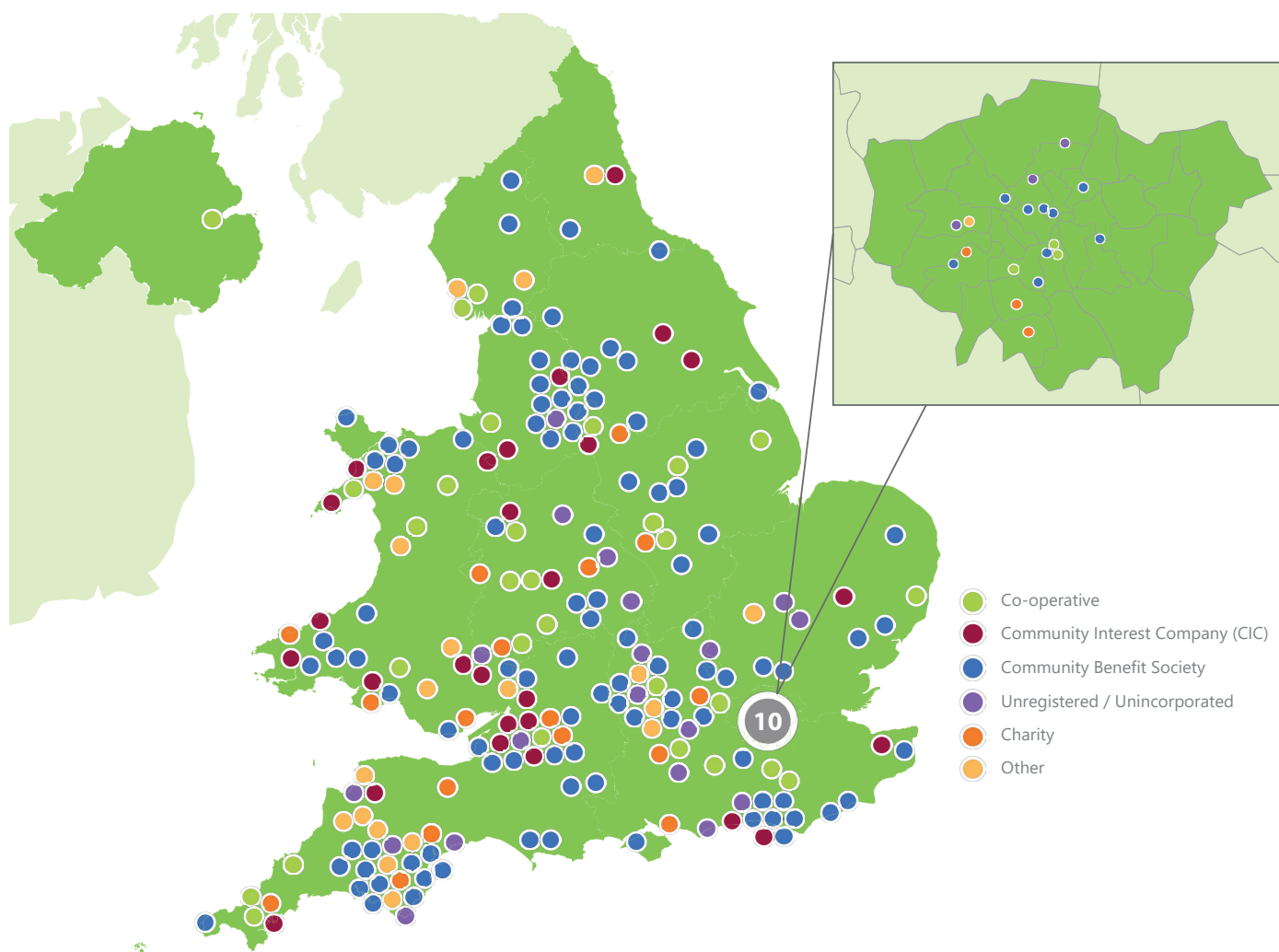
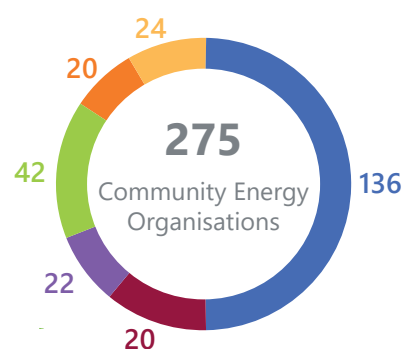
For further information, see: [hub.communityenergyengland.org/resources/BEIS-Local-Energy-Team-Homepage](https://hub.communityenergyengland.org/resources/BEIS-Local-Energy-Team-Homepage)

## Geography of Community Energy

In total, 275 community energy organisations were identified throughout England, Wales and Northern Ireland<sup>2</sup>. Just 3 of these organisations were found to have formed in 2018, in London, Lancaster and Pembrokeshire. Organisations with new community energy projects in 2018 were found to centre on urban areas, particularly London, Brighton, Bournemouth, Bristol and Cardiff. These projects were most often small-scale rooftop solar PV or initiatives focused on energy efficiency.

It is clear that partnerships and support at a regional and local level are central in stimulating successful community energy organisations. Supporting initiatives and organisations were identified within the regions with the greatest number of community energy organisations, including community energy specific funding streams, supportive local authorities and energy network operators, and proactive community energy umbrella organisations.

The UK Government has begun the process of setting up Local Energy Hubs across 5 regions of England. It is hoped that the support, leadership and knowledge provided by these hubs may support the growth of community energy across each of these areas into 2019 and beyond. In October 2018, the Welsh Government launched the new Welsh Government Energy Service, which will provide financial and technical support to help public sector and community groups across Wales to develop their own renewable energy schemes.



<sup>2</sup>An increase of 47 organisations in comparison to 2017, including 8 new organisations and 39 new respondents

## People & Communities

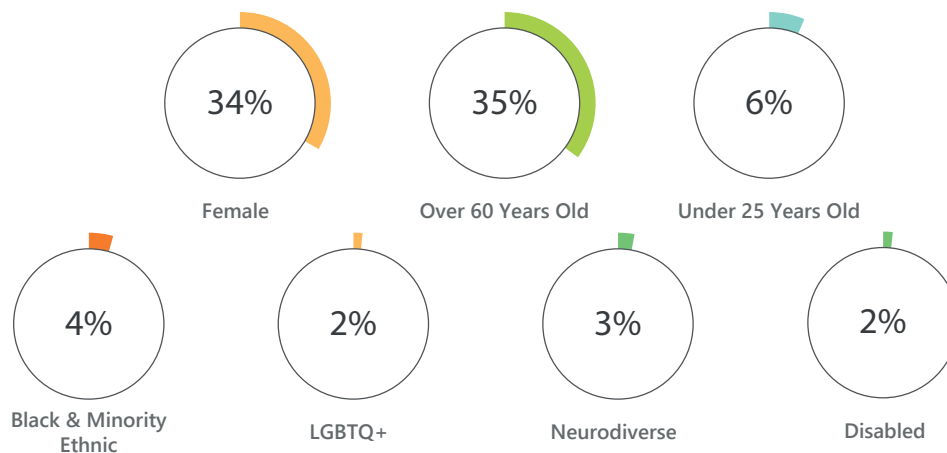
At the heart of most community energy organisations is the aim to develop local community capacity, cohesion and inclusivity. The sector's resilience is due to the immense efforts of community members who often donate their time to support these principles and local development.

205 full time equivalent (FTE) staff were identified in the community energy sector, an increase of 23% in 2018. These staff were reported to be particularly in supporting organisations with large project portfolios or significant core funding. 70% of organisations were found to have no paid staff and entirely reliant on volunteers to deliver their projects. For groups reliant on volunteers, community energy organisations reported that a small central core of volunteers were often responsible for their energy projects. 56% reported fewer than 10 volunteers, though many noted that volunteers were not tracked effectively due to lack of staff or formalised human resources.

The community energy sector was found to have an impressive reach, with 46,000 members, including local members and non-local investors. Furthermore, community energy organisations reported engaging over 68,000 people via their mailing lists and community energy events.



On average community energy organisations members and volunteers were found to be...



On average, 1 in 3 community energy practitioners were found to be women, suggesting similar gender equality as seen in the wider renewable energy sector<sup>3</sup>. Further to this, 15% of responding community organisations reported that over half of their staff and volunteers are women.

A strong bias was found towards older generations, with an average of just 6% of staff and volunteers reported to be under 25 years old. Greater involvement of younger people is a key route to sharing intergenerational knowledge and action in regard to climate and energy.

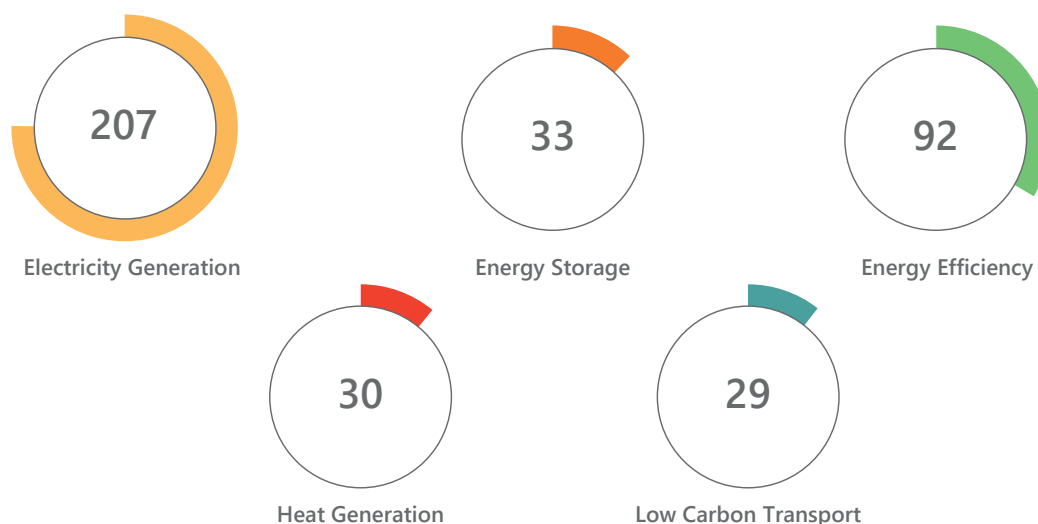
Limited diversity was noted, including an average of 4% of practitioners who considered themselves to be Black, Asian or Ethnic Minority (BAME). 1.6% of respondents considered themselves to be lesbian, gay, bisexual, transgender, queer or questioning and others (LGBTQ+) and 3% considered themselves to be neurodiverse. Whilst survey respondents noted difficulty in tracking these figures due to changing volunteer groups and a lack of human resource reporting, it is clear that greater effort is needed to make community energy a more inclusive and diverse sector. This is a key route towards locally beneficial projects in new and diverse communities.

<sup>3</sup>IRENA (2019) Renewable Energy: A Gender Perspective



## Low Carbon Communities

Communities are involved in a number of low carbon activities, including...



The community energy sector continues to be dominated by electricity generation projects, with organisations often utilising income for wider low carbon aims and initiatives. In contrast, few organisations were found to be involved in heat generation, with limited installed capacity attributable to the complexity of community heat projects, high project costs, and the few successful and replicable community heat projects.

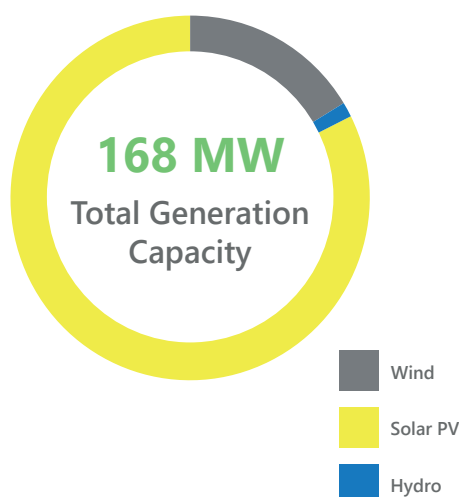
Energy efficiency and related activities, such as demand reduction and wider awareness raising (e.g. energy cafés), became an increasing focus for community energy organisations in 2018. To some extent this relates to reduced prospects for energy generation projects, though many community energy organisations stated that engagement with, and the local impacts of, their energy efficiency work was a core aim of their organisation.

It was reported that innovation is becoming increasingly important in allowing many energy generation and supply models to function in the current policy landscape. Community energy organisations were found to be investigating flexibility services, demand side response, local energy supply and peer-to-peer (P2P) trading alongside a variety of partners in the energy sector, including Distribution Network Operators (DNOs), innovation focused start-ups, universities, local authorities and Local Enterprise Partnerships (LEPs).



## Electricity Generation

Incremental removal of support for onshore renewables has made grid export energy generation projects challenging at the community scale. 2018 saw the fewest new electricity generation projects and the least new installed capacity since 2016, with an increasing trend towards the installation of small scale solar and micro-hydro, and with no newly installed wind energy projects last year.



In 2018, 7.9 MW of new community energy capacity was installed, including 0.7 MW across 4 micro-hydro schemes and 7.2 MW across 47 new solar sites.

However, community energy generation capacity increased by just 3.9 MW during 2018. This disparity is due to the fact that wind capacity dropped by 4 MW in 2018, as the Fenland Green Power Co-operative sold its project to a private company to release equity for local use.

As of December 2018, the total generation capacity of England, Wales and Northern Ireland was found to be 168 MW, comprised of:

- 27.4 MW wind
- 138.3 MW solar PV
- 2.2 MW hydro

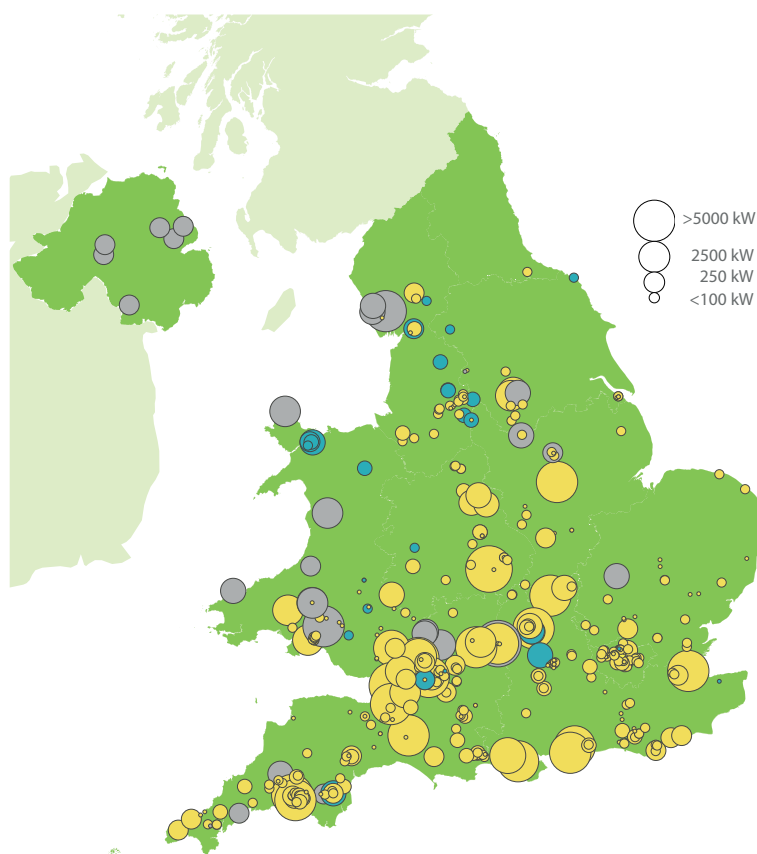
Including the 68 MW of community owned energy in Scotland, the total UK community electricity generation capacity is 236 MW.

Solar PV capacity was dominated by Yealm Community Energy's ongoing purchase of the 5 MW Newton Downs solar farm from CORE Partners. The remaining 2.2 MW of solar PV capacity was found to be rooftop based, mostly in urban locations, including 12 new solar school installations by the Energy4All supported Schools' Energy Co-operative.

New hydropower sites included Sandford Hydro in Oxfordshire, RainePower in Cumbria, Bury Community Hydro in Greater Manchester and Welcome to Our Woods in South Wales.

Total energy generation in 2018 was 191.4 GWh, equivalent<sup>4</sup> to 56,000 tCO<sub>2</sub>e and enough energy to supply the annual electricity demand of 64,000 homes.

A further 38.9 MW of electricity generation projects were found to be in planning. Many of these projects were aiming to secure Feed-in Tariff accreditation, pre-accreditation or pre-registration prior to the March 2019 deadline. A number of organisations were reported to be working to secure community generation assets via the purchase of existing sites.



<sup>4</sup>Based on BEIS emissions factors (2018) of 0.291kg CO<sub>2</sub>e/kWh

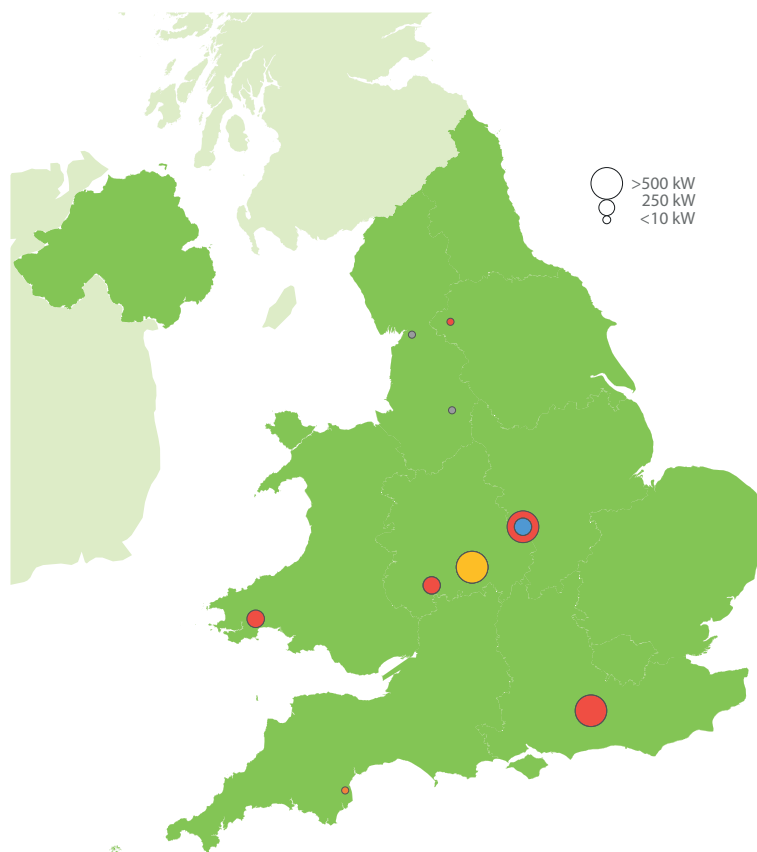
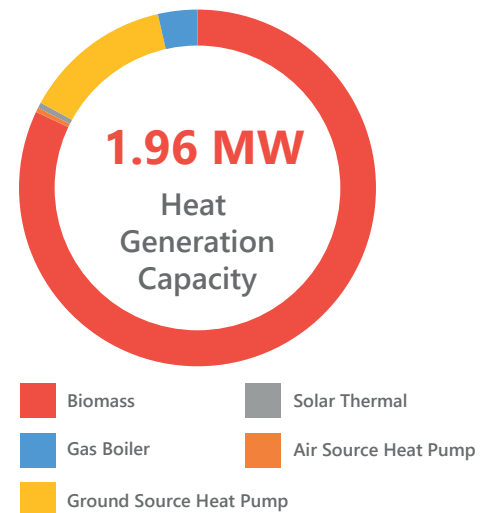
## Heat Generation

Whilst support for electricity generation reduced greatly in 2018, subsidy support is still present for the deployment of heat technologies via the Renewable Heat Incentive (RHI) until March 2021. However, despite this available support, there were reported to be very few community heat generation projects installed at the time of the State of the Sector 2019 survey.

Just 144 kW of community-owned renewable heat was installed in 2018, comprised of solar thermal, ground source heat pumps and a gas boiler system. This brings the total installed heat capacity to 1.96 MW across England, Wales and Northern Ireland, generating 3.89 GWh in 2018 and reducing carbon emissions by 711 tCO<sub>2</sub>e.

Including the 12 MW of community owned heat generation in Scotland, the total UK community capacity was 15.89 MW, as of December 2018.

State of the Sector 2019 survey respondents noted an interest in community heat, particularly in the investigation of low carbon heat networks. Several respondents also noted that heating would likely be a focus of their organisation during 2019 as a means of capitalising on existing subsidy and support schemes before 2021. Furthermore, the long development timelines associated with low carbon heat networks mean many organisations have already begun investigating feasibility of such projects.



The low uptake of heat projects, particularly heat networks, in the community energy sector can be attributed to a number of factors, including:

- Difficulty of competing with low cost gas and oil.
- Complex stakeholder engagement.
- High costs of installing heat networks and other heat transmission systems.
- Lack of precedent or best practice in the community sector.

Whilst reported to be low at the time of the State of the Sector 2019 survey, the uptake of community heat projects is likely to increase prior to the closure of the RHI in March 2021. Improved support, including community specific funding and knowledge sharing around heat network development, may be suitable steps towards delivering successful local energy projects within relatively short timescales.



## Energy Storage



Dramatic reductions in energy storage costs, increased use of energy behind the meter and new opportunities resulting from the energy system transition have led to an increase in community energy storage projects.

33 community energy organisations were found to be investigating or actively deploying energy storage in their communities, of which 90% focused on electrical storage. Community energy organisations installing batteries were found to focus on domestic scale systems between 5 – 10 kWh, totalling 496 kWh across England and Wales. None were reported in Northern Ireland.

Whilst costs have reduced, community energy organisations often stated in survey responses that battery projects were still at the feasibility stage and that high upfront costs made the business case difficult to justify.

The majority of successful projects were found to be supported by innovation grants or as part of research and development projects in partnership with commercial organisations and universities. These projects were found to focus on wider innovation, such as local energy trading, network balancing and local energy data monitoring.

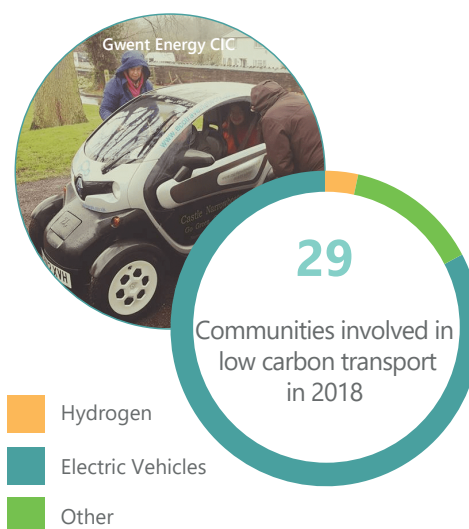
## Low Carbon Transport

Similar to energy storage, low carbon transport costs were reported to have fallen and new opportunities arising from the energy system transition may increase community energy uptake.

In 2018, 29 community energy organisations stated that they were actively involved in low carbon transport projects, including electric vehicles, car clubs and hydrogen based transport.

The majority of community energy organisations involved in low carbon transport focused on supporting and using electric vehicles, including 8 community energy organisations, who installed charging infrastructure, and 13 using EVs in their local area. A further 4 community energy organisations completed feasibility studies and business modelling for EV charging and use, and 2 community energy organisations conducted feasibility studies relating to hydrogen transport and fuelling.

2 community energy organisations reported an interest in utilising EVs for demand side response and flexibility services. Projects such as these may offer new revenue streams for community energy organisations and EV owners, and may form a useful model for community EV deployment in future.



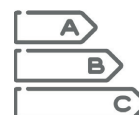
## Energy Efficiency

Energy efficiency projects include a wide range of activities, from direct services such as energy audits and insulation upgrades, to wider low carbon awareness raising and education initiatives.

Because of this wide range of activities and the necessary engagement with local people, energy efficiency projects can deliver broad low carbon impacts across the local community. Coupling this with the decreased viability and increased complexity of energy generation projects, community energy organisations were reported to have increasingly transitioned to delivering energy efficiency projects during 2018 to ensure continued local value and benefit from energy projects.

### Local people engaged by Energy Efficiency projects in 2018

# 128,000



In total, 92 organisations were reported to have undertaken energy efficiency projects or initiatives in 2018. These organisations engaged over 128,000 local people through their energy efficiency projects and provided direct services and upgrades to 17,600 local homes, schools and businesses. The most common interventions were also found to be the lowest cost, including energy audits, provision of energy efficient lighting and advice on energy efficient appliances.

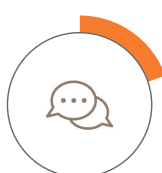
High impact projects included Brighton and Hove Energy Services Co-operative (BHESCo) which visited 330 households in 2018, installing simple and cost-effective measures which would reportedly save homeowners £56,000 and reduce over 50 tCO<sub>2</sub>e. The Cold Homes Energy Efficiency Service Experts project (C.H.E.E.S.E) in Bristol carried out 91 thermal imaging surveys for local households and businesses in 2018, including 32 free surveys for low income households, forming a first step toward improving domestic energy efficiency in the local area. It was reported that the project was to be replicated in South East London.

Due to limited resources, community energy organisations most often act as advisors to local people via energy cafés, workshops and events, informing and supporting energy efficiency works, rather than implementing upgrades themselves. Sharing expertise is seen as a critical means of delivering energy efficiency improvements, in particular directing local people to appropriate schemes and funding support. Over 825 separate community energy efficiency events were held in 2018, engaging 4,600 local individuals.

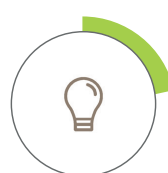
### Communities delivered diverse energy efficiency projects in 2018. The most common were...



Energy Audits



Advice & Workshops



Energy Efficient Lighting



Insulation



Energy Switching



Energy Cafés



Smart Meter Installation

## Harbury Energy Initiative

In 2015, Harbury Energy Initiative introduced an electric car club in association with partners at E-Car Club, parking two Renault electric vehicles near Harbury village library and café. This trial was made possible through a successful £18,000 grant from the Department for Transport's 'Developing Car Clubs in England' challenge.

Providing even greater community benefit, Harbury Energy Initiative introduced the separate 'e-Wheels' scheme in 2016. Harbury E-Wheels offers free electrified transport to help vulnerable local people attend important appointments such as the doctors', dentists', or social centre. The scheme's volunteer drivers also help collect food from a supermarket to deliver to the local food bank. In total, it was reported that e-Wheels provides about 4,000 hours of free transportation for people each year, covering around 12,000 miles.



## Meadows Ozone Energy Services (MOZES)

Between 2014 and 2018, the Meadows Ozone Energy Services (MOZES) social enterprise group investigated the potential to use energy storage to reduce its local community's fuel costs and energy use. This Horizon 2020 funded 'Sensible Project' was made possible through the group's partnership with the Universities of Nottingham, Oporto, Seville, and Nurnberg. The demonstration aimed to show how effective energy storage can be in reducing grid demand as well as energy costs for the residents. Having secured new funding, the project will be extended for another year.

MOZES installed 6kW of battery storage in 11 separate houses fitted with solar PV; installed 4 houses on dual tariff meters, and fitted 6 houses with solar heaters. 6 separate houses were also fitted with energy monitoring kits. The project collected and analysed these houses' generation, storage, and energy use profiles, to assess the potential for community energy sharing and reducing grid electricity use at times of high demand.



## Gwent Energy Community Interest Company (CIC)

Gwent Energy, a family-run community interest company in South Wales, is engaged in all aspects of community energy. The organisation supports the installation of solar PV, electric vehicle charging, battery storage for community and domestic customers, and provides community energy education events and training events.

Gwent Energy reported that it will be developing a number of solar projects in 2019, including solar and battery at a local community centre. The organisation is also working with partners to install a network of public EV charging points in SE Wales.

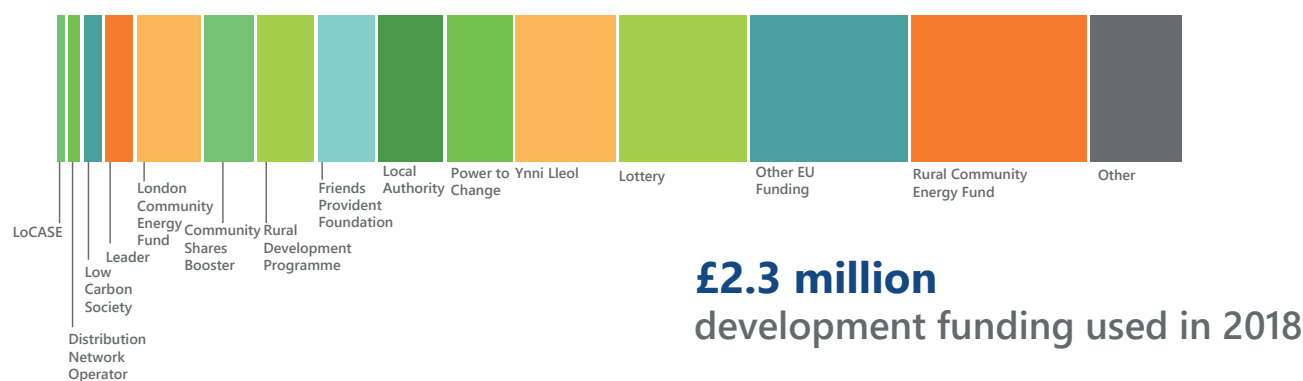
At the time of the State of the Sector 2019 survey, Gwent Energy has supported over 30 local community groups, including community facilities, clubs, churches and schools, to reduce energy bills through solar PV installation and energy efficiency improvements.



## Funding & Finance

The community energy sector has a history of utilising limited initial funding to leverage large financing values and delivering projects with demonstrable local benefits and impacts. The sector's resilience relies on the number and variety of investors, from traditional loan finance through to more inclusive forms, such as community shares.

Total project development funding in 2018 was reported to be £2.3 million, sourced from the most diverse pool of funders seen so far, when compared with previous State of the Sector Reports. Central government funding, via the Rural Community Energy Fund (RCEF) in England and the Ynni Lleol ('Local Energy') programme in Wales, contributed a large portion of total project funding, however, they were both geographically limited. Increasingly, regional or local authority funding programmes were reportedly being used to deliver local energy projects, including schemes such as the London Community Energy Fund (LCEF) and through direct funding from local authorities and Distribution Network Operators (DNO). Community energy organisations were also found to be involved in a greater number of innovation projects supported by significant national and international grants, including Innovate UK, EU Interreg, Horizon 2020 and European Regional Development Fund (ERDF).



Whilst the total number of new community energy projects completed in 2018 was comparatively low, £40 million in project financing was raised in 2018. Over half this value was found to be sourced through loans (£23.1m). This included a large proportion dedicated to the refinancing of existing projects at more financially viable loan rates and as part of ongoing financing of project purchases conducted in 2017.

Finance raised through community shares contributed £9.2m in project financing in 2018, with a further £5.5m in financing via bond offers. Similarly, share and bond offers were most often used to refinance projects originally funded via loans, in particular projects developed in 2016/17.

One notable change has been the increase in grants, from £800,000 accessed in 2017 to £1.8m in 2018. This was due to both an increased focus on energy efficiency projects where small grants were often used for the delivery of engagement and efficiency upgrades, as well as larger innovation focused projects, such as battery installations and local energy supply projects.

In line with the drop in new community energy projects, the value of direct project financing was found to have reduced significantly. Large financing values were most often related to refinancing. This suggests that the sector, at least in respect to generation assets, was in a period of consolidation rather than further investment and development.



## A Challenging Year

The energy system and the policies and regulations which underpin it changed dramatically and rapidly in 2018. Large reductions in the Feed-in Tariff and the subsequent announcement to remove the Feed-in and Export Tariffs hit the community energy sector especially hard. Meanwhile, it was reported that the transition towards a smarter, more flexible energy network was beginning to open up new energy opportunities.

The lack of certainty and associated risks had negative impacts on project development throughout the energy sector in 2018. Clearer governance, including improved guidance, policy and funding streams, is necessary to ensure the longevity and success of the community energy sector over the coming years and to foster the enthusiasm and drive of those within it.

"Our motivation is to create a decentralised, decarbonised, and democratised energy system"

## Motivations

In the face of significant challenges, community energy organisations were keen to highlight the resolve and ambition to continue to deliver their organisation's goals. Tackling climate change was seen as a key motivator for 95% of community organisations, in line with their low carbon energy generation, management and use reduction projects. Alongside this, income generation and cost savings were considered an important route towards delivering both low carbon and community development projects.

Wider social and local environmental motivations focussed on improving community resilience and cohesion, including awareness raising and behaviour change; supporting community services, groups and culture; and improving biodiversity and air quality.

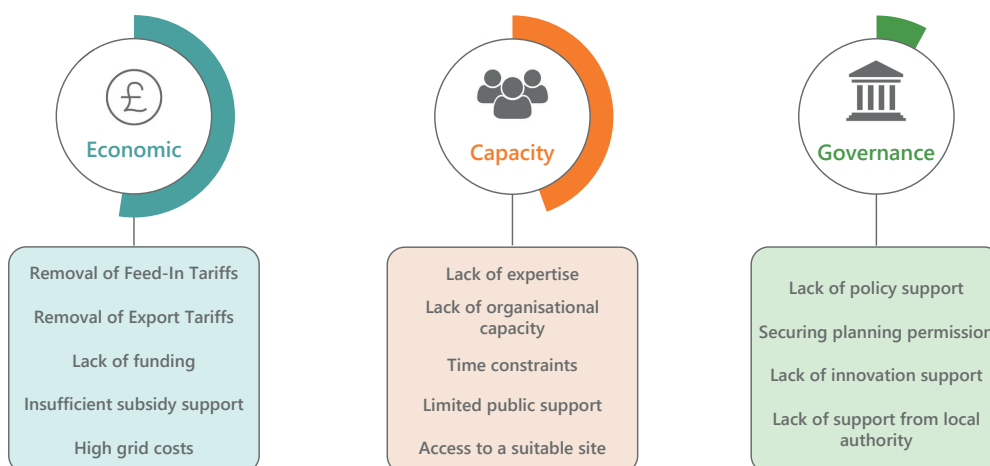


## Challenges

The greatest challenges faced in 2018 centred around the reduction of support mechanisms, including the Feed-in Tariff. Changing support and the related uncertainty was seen by many respondents as symptomatic of a lack of clear national and local governance and support. These recent changes will continue to be a barrier to new community energy generation projects through 2019 without suitable alternative supporting mechanisms.

Community energy organisations also reported challenges due to a lack of organisational capacity and time constraints on their work. Due to limited core funding for staff and the volunteer-led nature of the community energy sector, some organisations reportedly suffer due to elongated project timescales, as well as a lack of in-house expertise and funding to pay for external assistance.

Access to suitable development sites was reported as an ongoing problem for community energy organisations, which often lack land or assets for development. Constraints related to site identification, as well as the added complexity and time of negotiating agreements and leases, were reported as barriers by 30% of respondents. A number of new initiatives were seeking to address these constraints, such as Forum for the Future's online PowerPaired<sup>5</sup> portal which seeks to matchmake between site owners and community energy organisations.

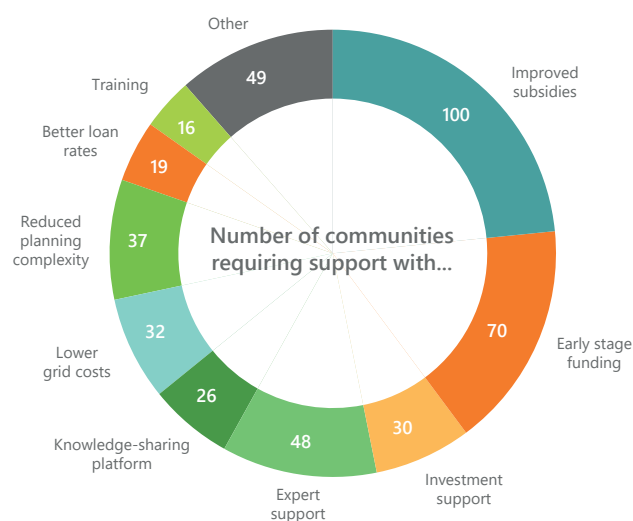


## Supporting Communities

Improved, reinstated or replaced subsidies were called for by 61% of respondents, alongside calls for better recognition of the value of community energy and policies which will support the sector's growth.

As in previous years, community energy organisations requested simpler and more accessible funding streams for community energy, including funding for business development, technical and financial support. Funding for core costs was also highlighted as important in enabling community energy organisations to spend more time developing their projects or to employ dedicated staff, such as a community development officer, rather than relying on outside expertise.

Both expert support and better knowledge sharing between community energy organisations and throughout the sector were also discussed by many respondents. The provision of training, workshops and knowledge sharing platforms could address capacity and help to stimulate new and innovative projects in the future.



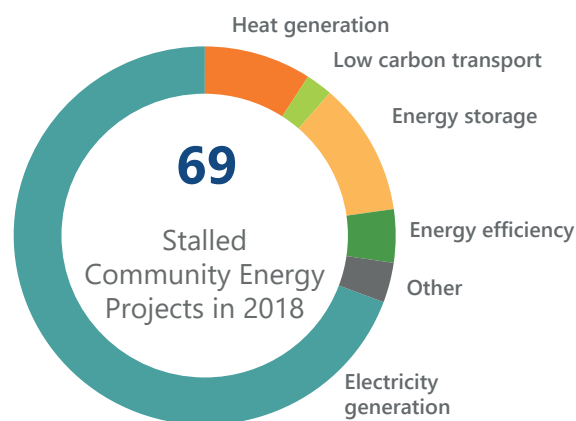
<sup>5</sup>Launching in 2019 at [www.forumforthefuture.org/community-energy](http://www.forumforthefuture.org/community-energy)

## Stalling Momentum

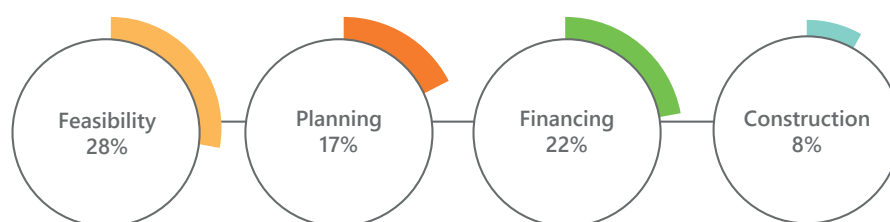
With an increasing number of barriers to development, over 42% of community energy organisations stated that they had a stalled or failed project. Following the removal of the Feed-in Tariff and Export Tariff, this is likely to increase dramatically in 2019.

Electricity generation projects were the most likely to have stalled, with projects most often stalling at the point of feasibility and financing. As expected, this was reported to be due to a lack of viable business models, as a result of subsidy reduction. A number of community energy organisations reported stalls due to failure to secure land or lease agreements, or lack of engagement on the part of building or site owners, including local councils, homeowners and businesses.

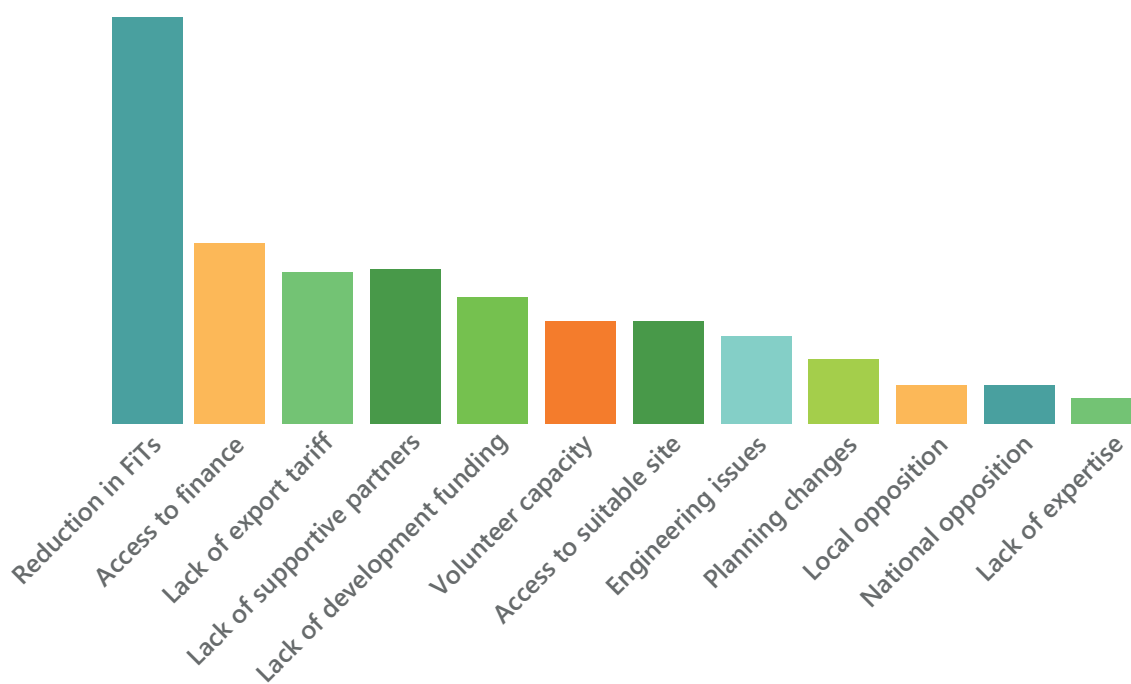
10 energy storage projects were also found to have stalled, due to the high costs of battery technologies and subsequent lack of viable business models, unsupportive partnerships and high grid costs.



Community projects stalled at...



Due to...



## The Benefits of Community Energy

Community energy has been shown to have large direct and indirect economic impacts on local communities.

In 2018, community energy organisations were found to have spent £978,000 through community benefit funds. A wide range of other economic benefits were noted, including:

- Low cost generation for local homeowners, community buildings and schools.
- Dividend payments to community investors.
- Reduced transport costs through EV charging infrastructure.
- Job creation in the local area.
- Cost savings via energy efficiency upgrades in the local community.

**£978,000**



**Community benefit funding  
spent in 2018 on local  
community development**

Community benefit funds were most often used to develop further community energy projects or offered via grant programmes to support wider low carbon development (e.g. grants for energy efficiency upgrades).

The wider benefits of community energy were found to centre particularly on the provision of low carbon education, training and awareness raising programmes, consistent with community energy organisations' aims to support climate change action. Similarly, local environmental improvements were seen as a core focus of community benefit schemes, often as part of initiatives to engage schools and young people. Organisations with generation projects also noted that site visits and educational trips to other low carbon project sites provided opportunities for awareness raising, as well as training for volunteers or students.

The support of local services and groups, such as befriending and youth groups featured in many community energy organisations' stated social impacts, most often via grants for service development. Through these actions, community energy organisations hoped to increase local social cohesion and support inclusive activities whilst furthering local peoples' low carbon awareness. Further social impacts were highlighted, including local fuel poverty reduction, increased community health and wellbeing and improved financial security for local people through reduced costs.





## The Future of Community Energy

When asked about the future of the community energy sector, 69% of respondents were found to feel negatively about its prospects.

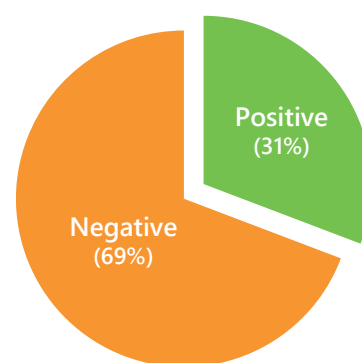
This particularly related to the consequences of the Feed-in Tariff removal and a sense of increasing uncertainty in, and decreasing support for, the community energy sector. Alongside criticism of policy and subsidy changes in 2018, many community energy organisations called for clearer leadership and long term commitment from the UK government.

Whilst 2019 looks set to be another challenging year for the sector, there is still optimism from many in the community energy sector. New opportunities arising from the energy system transition, including new business models, the relaxing of regulations around energy supply, flexibility, balancing and demand side response, offer new possibilities for community-led energy development.

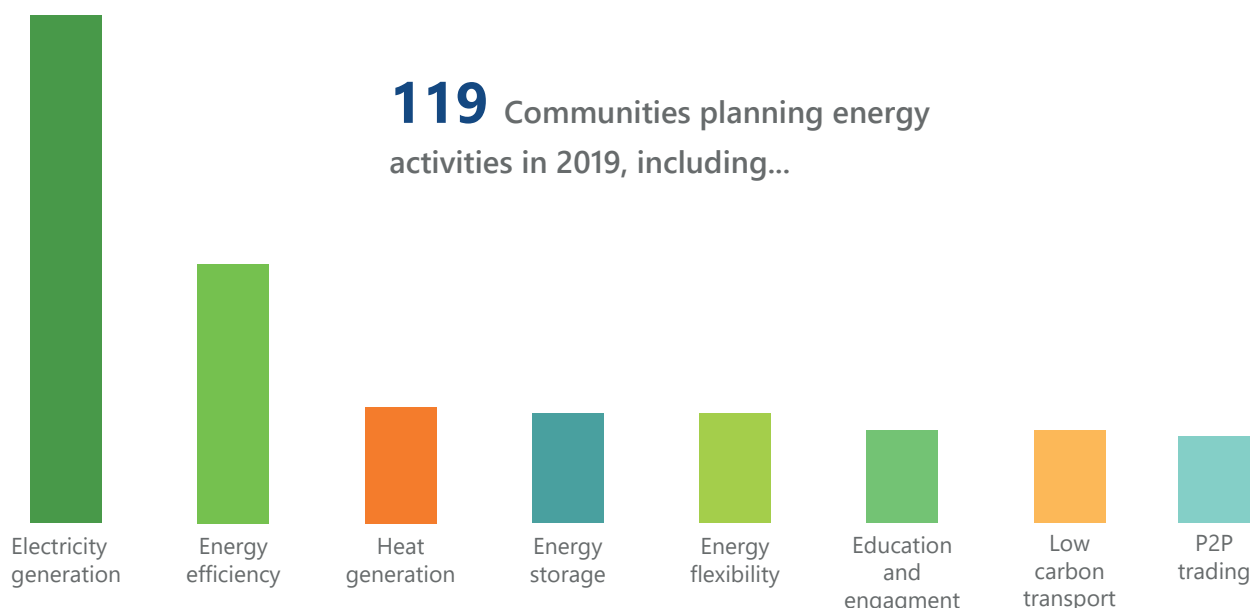
These new opportunities are complex and untested, which means community energy organisations will need support to access and benefit from them. Greater knowledge sharing between community energy organisations, increased support for projects with demonstrable local social impacts, incentives to engage with community energy organisations in relation to energy networks and markets, and innovation-specific funding, finance and tax relief could all play a part in stimulating community energy in 2019.

At the point of surveying, 72% of community energy organisations stated they planned to continue with their energy activities in 2019. Electricity generation was planned by 88 organisations, all hoping to pre-accredit or pre-register solar PV installations before the March 2019 Feed-in Tariff deadline, or to develop projects behind the meter. 76 community energy organisations reported that they intended to develop projects including battery storage, flexibility services and P2P trading, reflecting an increasing focus towards innovations required in the future.

Community views on the future of the community energy sector



### 119 Communities planning energy activities in 2019, including...



## Community Viewpoints

"The reduced feed-in tariffs make the financial attractions marginal. Without a stronger financial case it will prove difficult to obtain commitment."

"There appears to be a revival in the sector as groups innovate solutions to post subsidy generation, grid innovation, aggregation and demand management are starting to be taken up by some groups."

"The removal of the FIT is forcing community energy groups to think differently about their role and diversify their services and look beyond generation projects."

"There is no long-term vision for the energy transition in the UK, despite consensus in other countries. This is shocking given the evidence on climate breakdown."



## Awel Co-op Windfarm

Photo Credit: Mike Harrison, Awel Co-op

Find out more at:


[hub.communityenergyengland.org](http://hub.communityenergyengland.org)

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