



local energy  
north west hub

electricity  
north west

Bringing energy to your door



## Zero Carbon Communities

COP 26 – What does it mean for  
community energy?

18<sup>th</sup> November 2021

Stay connected...



[www.enwl.co.uk](http://www.enwl.co.uk)



**Helen Seagrave**  
**Community Energy Manager**  
**Electricity North West**



**Kate Gilmartin**  
**Rural Community Energy Fund**  
**North West Local Energy Hub**



- Can you stay muted and turn your camera off unless you are talking
- The speakers will use their video when they are presenting.
- Questions can be raised at any time using the Q&A function.
- During the Q&A session delegates can also use the “raise your hand” function to indicate they would like to ask a questions.
- Can you add you full name and organisation to help with networking.



- 10.00 ***Welcome and introduction***, Helen Seagrave, Electricity North West
- 10.15 ***From rhetoric to practical action***, Duncan Law, Policy Manager, Community Energy England
- 10.35 **Questions and Answers**
- Session 2 – What can communities do now to move towards net-zero?**
- 10.45 ***Introduction***, Helen Seagrave, Electricity North West
- 10.50 ***CAfS – the carbon foot printing and solar modelling tool for communities***, Molly Hogg
- 11.05 **Low carbon heat, village scale approach**, Kate Gilmartin, Local Energy Hub
- 11.25 **Community owned EV car club**, Susan Ross, JIJ Community CIC
- 11.40 **Questions and Answers**
- 12.00 **Formal closed**, opportunity to network in small groups from 12.00-12.30.





## 1. What type of organisation do you represent?

- Community or local energy group
- Government or local authority
- Parish Council
- Local community group
- Individual
- Academic
- Other

## 2. Where are you or your community on your net-zero journey?

- This is my first step
- Interested in creating a group or project
- I am part of an established group but we haven't started a project yet
- We have a project but need to secure funding
- We have a project and we want to engage the community
- We've already delivered and want to do more!
- Other



## Local Energy Hub North West:

- Promote local delivery of policy in the [Net Zero Strategy](#)
- Support energy project development
- Deliver other aspects of Net Zero policy as directed by BEIS and our North West management board.



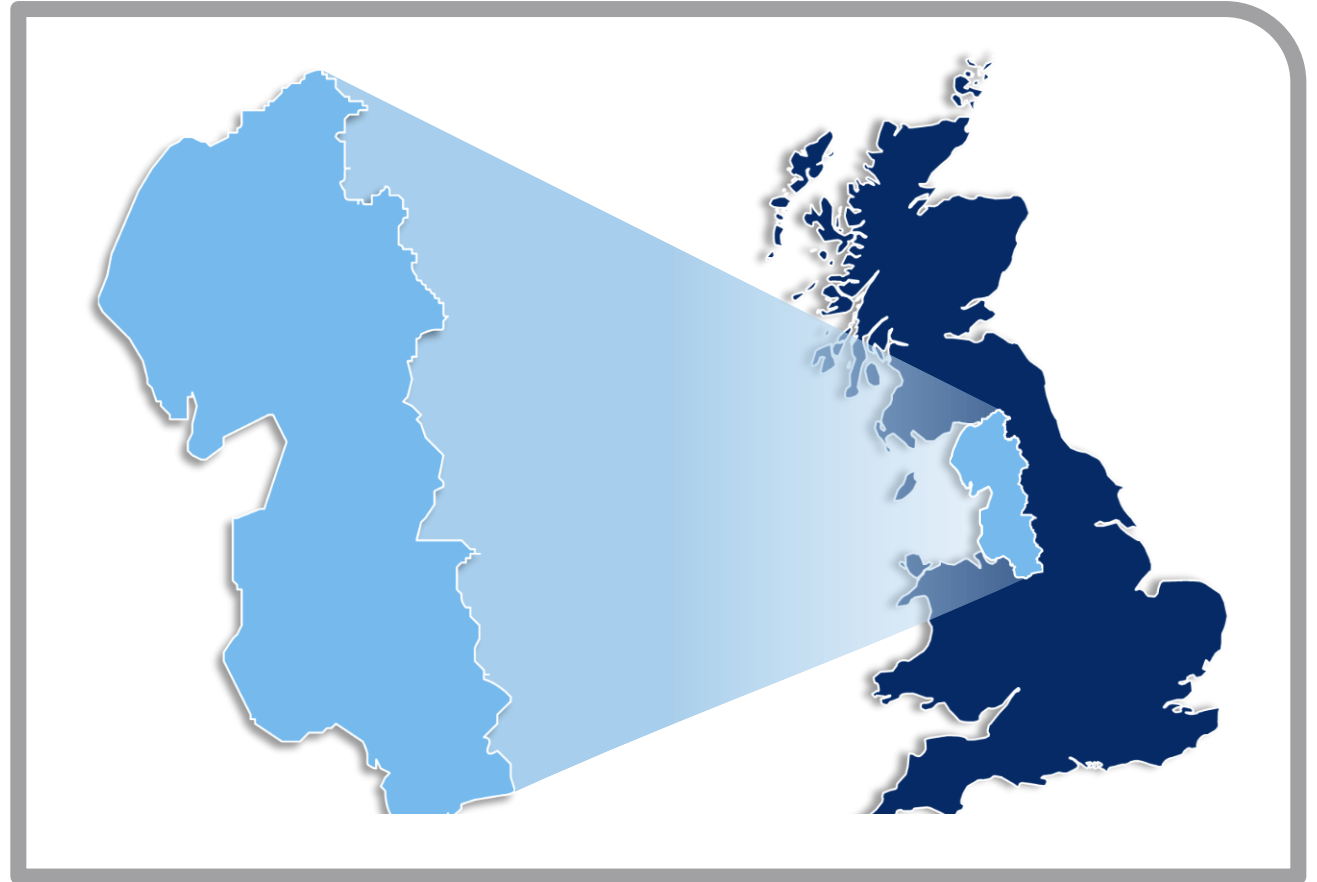
4.9 million



2.4 million



25 terawatt hours

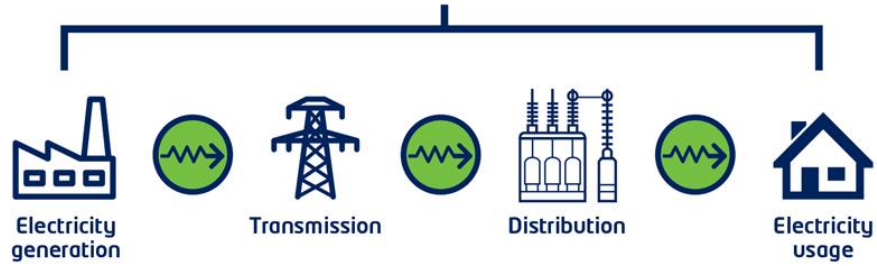


£12.3 billion of network assets ● 56 000 km of network ● 19 grid supply points  
66 bulk supply substations ● 363 primary substations ● 33 000 transformers

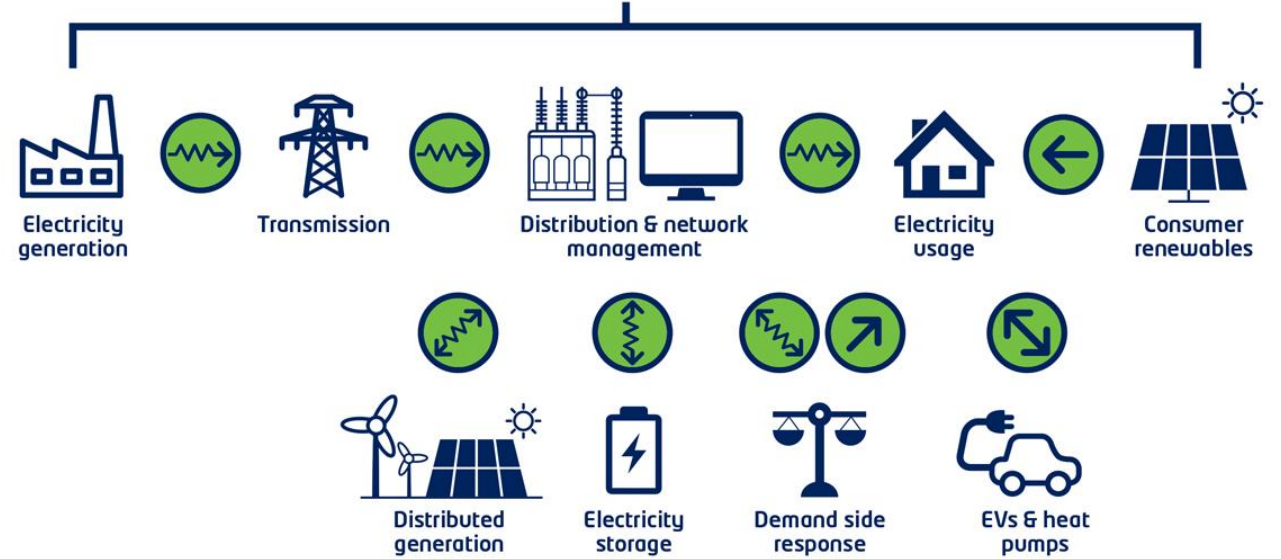
# Our role has changed



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# Community Energy State of the Sector 2021



## Community energy organisations in the North West

**29**  
Community energy organisations

•• New group in 2020 ••  
Ambleside Action for a Future

**10** new roles created in 2020

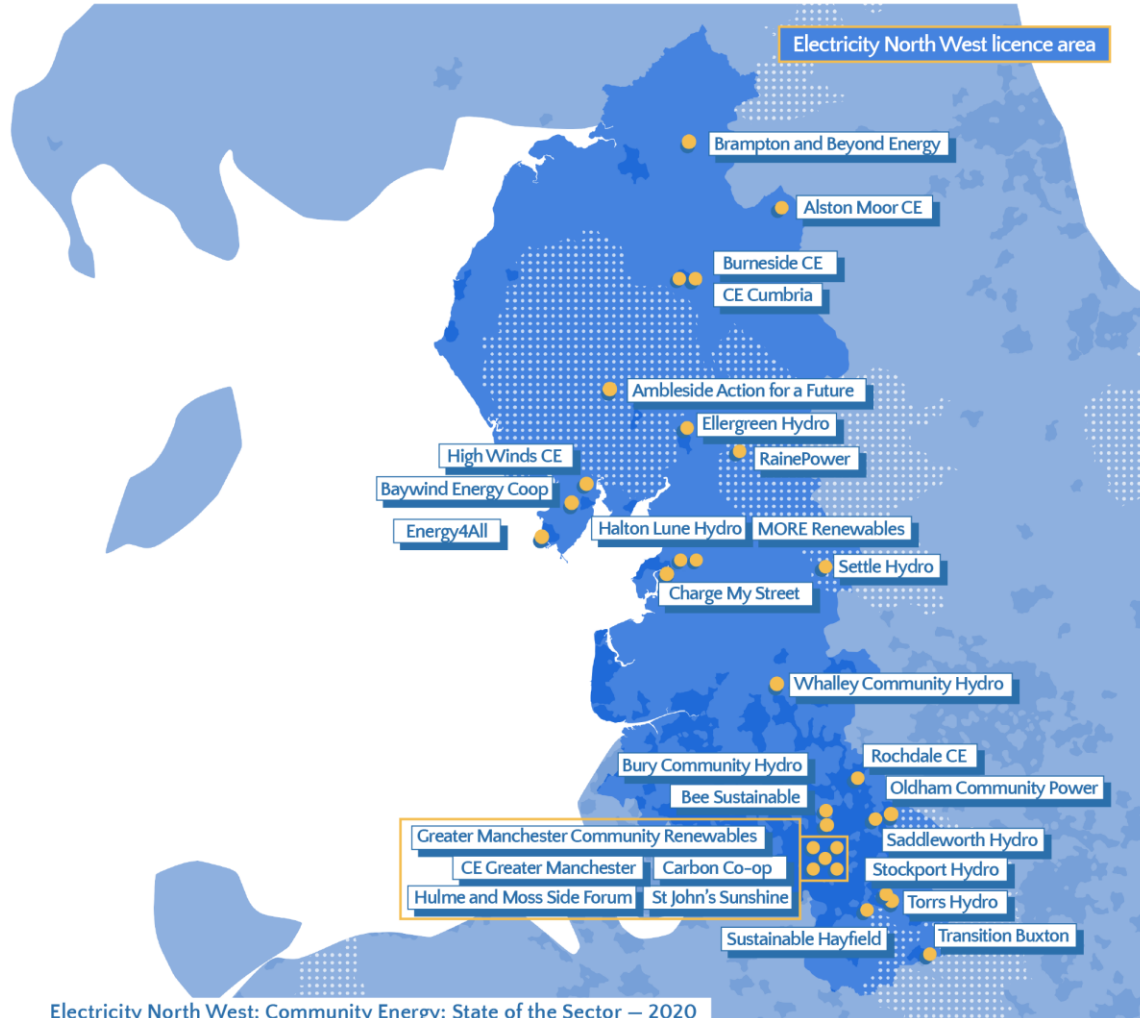
**38**  
full-time roles

**31**  
Electric vehicle chargers installed

Working with local businesses and as part of network flexibility trials

**£1,300** COVID-19 relief spending

**£120k**  
community benefit spending



# How we support community and local energy



Connections



Community Connects  
workshops



Advice & guidance



Case Studies



Funding



Policy and regulation  
information & advice



What support does your community need?

- Webinars with practical advice and guidance
  - Opportunities to network
  - Sign posting to resource
  - Funding / finance

What topics would you find useful?

- Finance / funding
- Help navigating resources
- Community engagement
- Business plan / project development support



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# From rhetoric to practical action

## Duncan Law, Policy Manager, Community Energy England



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Putting people and communities (and community energy) at the heart of energy, net zero and green recovery policy

## COP 26 – What does it mean for community energy?

‘From rhetoric to action’  
Duncan Law



## Rhetoric...

I have been clear that I want civil society groups to be at the heart of both our preparations for COP and indeed the summit itself.





*“If we’re going to get to Net Zero we’re going to need more local engagement”*

**Kwasi  
Kwarteng**

*“reaching Net Zero will only be achieved by a joint effort. And for this civil society is vital. ....*

*Keep showing us what is possible”*

**Alok Sharma**

*“Community energy groups can act as catalysts for raising awareness and promoting behaviour change, both of which are vital if we are to achieve our 2050 goals.”*

**Anne-Marie  
Trevelyan**

## Community energy is essential to achieving net zero.

**“It will not be possible to get close to meeting a net-zero target without engaging with people or by pursuing an approach that focuses only on supply-side changes”**





## Rhetoric...

'World leading', 'ambitious'  
policy

- £9.2bn for retrofit
- 10 Point Plan
- NDCs 68% by 2030, 78% by 2035
- Net Zero Strategy
- Heat and Buildings Strategy
- Spending Review

Keeping 1.5 alive



# Reality... 10 Point Plan/Build Back Better

“psychic energy and public spirit.. magic potion”

- £1bn for CCUS
- 40 GW of offshore wind by 2030
- New nuclear energy
- Green Homes Grant...
- 600,000 heat pumps by 2030
- 1.5m homes to EPC C by 2030



# The Environmental Audit Committee recommends: “...harness the potential of community energy.”

*“Due to the urgency of the climate crisis and the vital roles communities will have to play in reaching net zero, it is essential that a timely solution to support the long-term growth of community energy across the UK is found.”*

*“emphasise the importance of community energy in the Net Zero Strategy”*

*“a UK-wide community energy strategy, to include practical support measures to harness the potential of community energy.”*



## Sec of State promises...

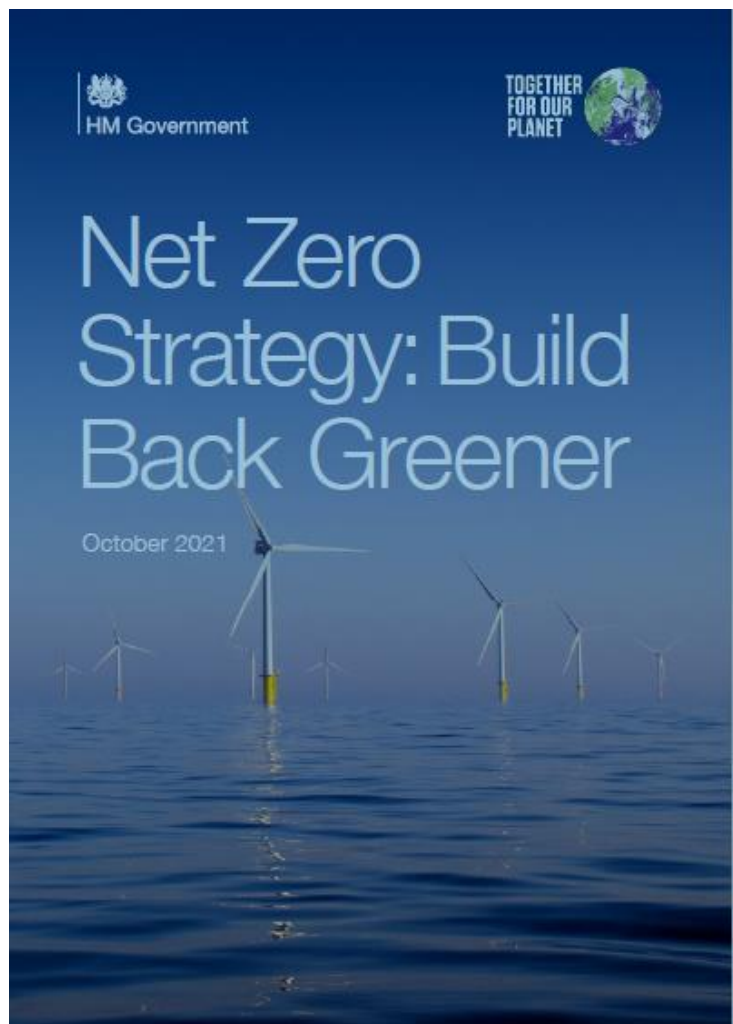
SoS response to Environmental Audit Committee recommendations:

“the Net Zero Strategy will include our future plans for community energy”





# Reality.. Net Zero Strategy



- **CE mentioned and Local Climate Action**
- **no plan or ‘practical support measures to harvest the potential of community energy’**
- **failed to ‘emphasise the importance of community energy’ to achieving net zero**
- **Community Energy Contact Group reestablished... due to ‘the scale and pace of work being taken forward’...**
- **£345m for new generation nuclear**

# Reality.. Heat and Building Strategy



- ‘Local actors can play a crucial role’
- £3.9bn on building retrofit - still £2bn of £9.2 billion pledge unallocated
- £450 million over 3 years to fund grants for heat pump installations (at £5,000 per home). This constitutes only 30,000 installations per year.
- £65m Flexibility Innovation Programme.

## Reality.. Spending Review



- **Climate change not mentioned**
- **Very little for communities or social businesses.**
- **reduced air passenger tax for domestic flights**
- **fuel tax increase cancelled again.**
- **£385 million for new nuclear.**
  
- **Funding for innovation, Green Investment Relief on biz rates...**

**and then there's the Cumbrian coal mine and the Cambo oil field...**

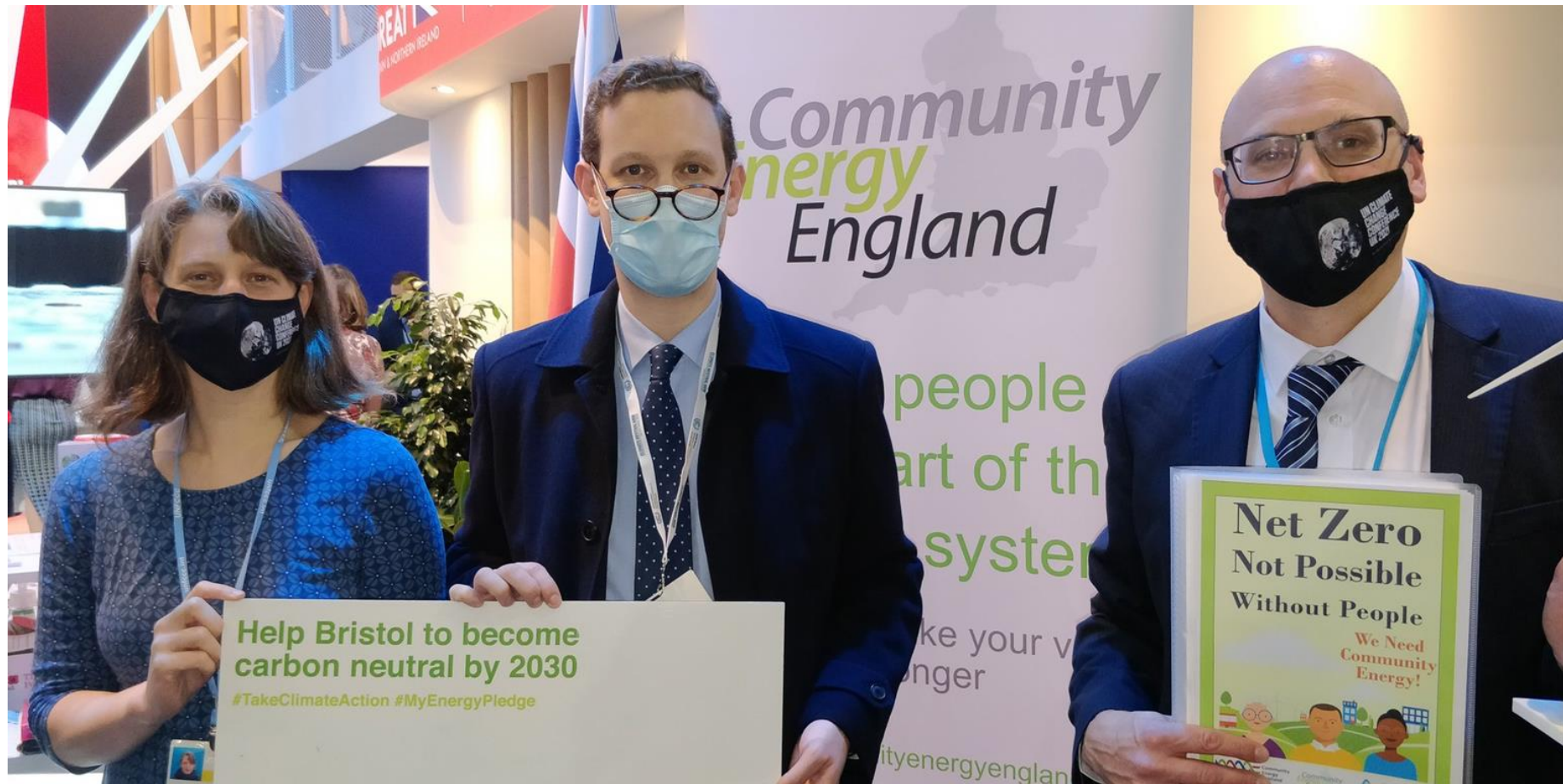
## COP26... Keeping 1.5 alive



- 1.5 is on life support
- NDCs increase in ambition annually.
- Methane, Forests, Finance...
  
- \$100 bn still not there.
- 'Phasing down' unabated coal
- Phasing out 'inefficient' fossil fuel subsidies
- People and communities still largely missing. Action on Climate Empowerment work is weak.
- Emissions gap from people not being involved in net zero still there...



# Action...



# Aims and Actions



**Get community energy funded out of BEIS' departmental budget.**

## **Action**

- **Write to MPs to lobby ministers.**
- **Invite MPs to see power of community first hand**
- **Any other avenues to raise importance of CE with Ministers.**

**Sample letter at**

**[bit.ly/HarnessYourMP](https://bit.ly/HarnessYourMP)**

# Please help community energy get a fair deal

Please urge BEIS Secretary of State and ministers to follow Environmental Audit Committee recommendations to:


- Recognise the importance of community energy to achieving net zero
- Put in place “practical support measures to harness the potential of community energy”, funded to enable the sector to scale, as commercial onshore renewables are supported by the Contract for Difference (CfD) scheme.

## Specific Policies

- a national Community Energy Fund to succeed the Rural Community Energy Fund (to include funding for urban, heat, energy efficiency and retrofit projects)
- reinstate tax relief and institute business rate incentives
- policy and funding for ‘Local Area Energy Planning’
- remove planning and regulatory blocks to community energy.



Community  
Energy  
England



A fully referenced  
and hyperlinked  
briefing is available  
at [bit.ly/CEatCOP](https://bit.ly/CEatCOP)  
or scan here



# Putting people at the heart of the energy system



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

@comm1nrg

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07958 635181





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# Question and Answers





What can communities do now to move towards net-zero?

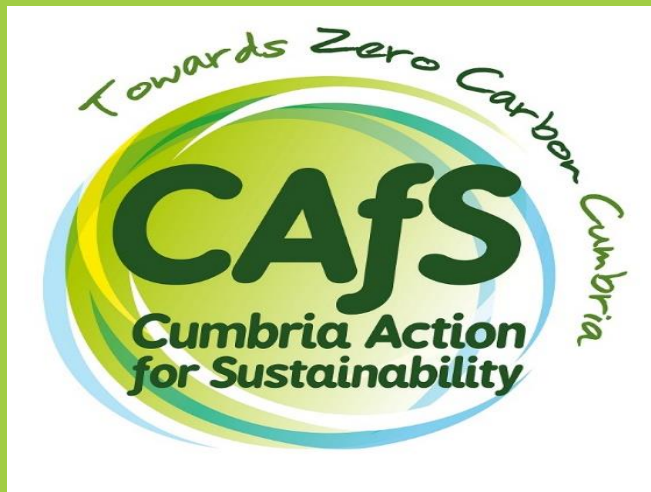




# Carbon foot printing and solar modelling tool for communities

## Molly Hogg, Cumbria Action for Sustainability





# Carbon Footprinting and Solar PV Mapping

Molly Hogg, 18<sup>th</sup> November 2021



# Ambleside to Zero and the Community Energy Start Up project

Tools developed through the Ambleside to Zero project:

- Carbon footprint calculator
- Solar PV mapping

Ambleside to Zero – Molly Hogg from CAfS, funded by SLDC, to support Ambleside Action for a Future

Community Energy Start Up – Roe Baker from CAfS, funded by ENW Powering our Communities, sharing these tools with:

- Keswick - Sustainable Keswick
- Alston Moor - Alston Moor Partnership, Alston Moor Business Association and Alston Moor Community Energy
- Halton with Aughton - Halton with Aughton Parish Council, Lancaster City Council and Green Wave Electrical, Halton



[Home](#)   [Sustainable living guide](#)   [For your home](#)   [For communities](#)   [Our projects](#)   [Events](#)

## Household carbon calculator login

You are logged in as Molly Hogg (molly@cafs.org.uk) [\[not you?\]](#)

- [\[My Details\]](#) Update your personal details
- [\[Change Email Address\]](#) Change the email address with which you log in
- [\[Change Password\]](#) Change your account password
- [\[Delete Account\]](#) Delete your user account, including all calculations
- [\[Log Out\]](#) To end your session, if you are using a public or shared computer

**Residential Calculator**   switch to [Business Calculator](#)

Select year for calculation:

[Welcome](#)   [House](#)   [Flights](#)   [Car](#)   [Motorbike](#)   [Other Fuel](#)   [Bus & Rail](#)   [Waste](#)   [Water](#)   [Goods & Services](#)   [Results](#)



### Welcome to the Residential Carbon Footprint Calculator

Please enter data for your entire household for the calendar year selected.

How many people are in your household?

Next, visit each of the tabs above to calculate your full carbon footprint.

# Carbon Footprint Calculator

Free to use across Cumbria and Lancashire

Gives you an understanding of:

- the size of your GHG emissions
- which areas of your life or business they're from

Enables you to:

- Prioritise action
- Monitor progress

As a community – encourage use locally

Launched in March - 164 users so far

- 113 households
- 51 businesses





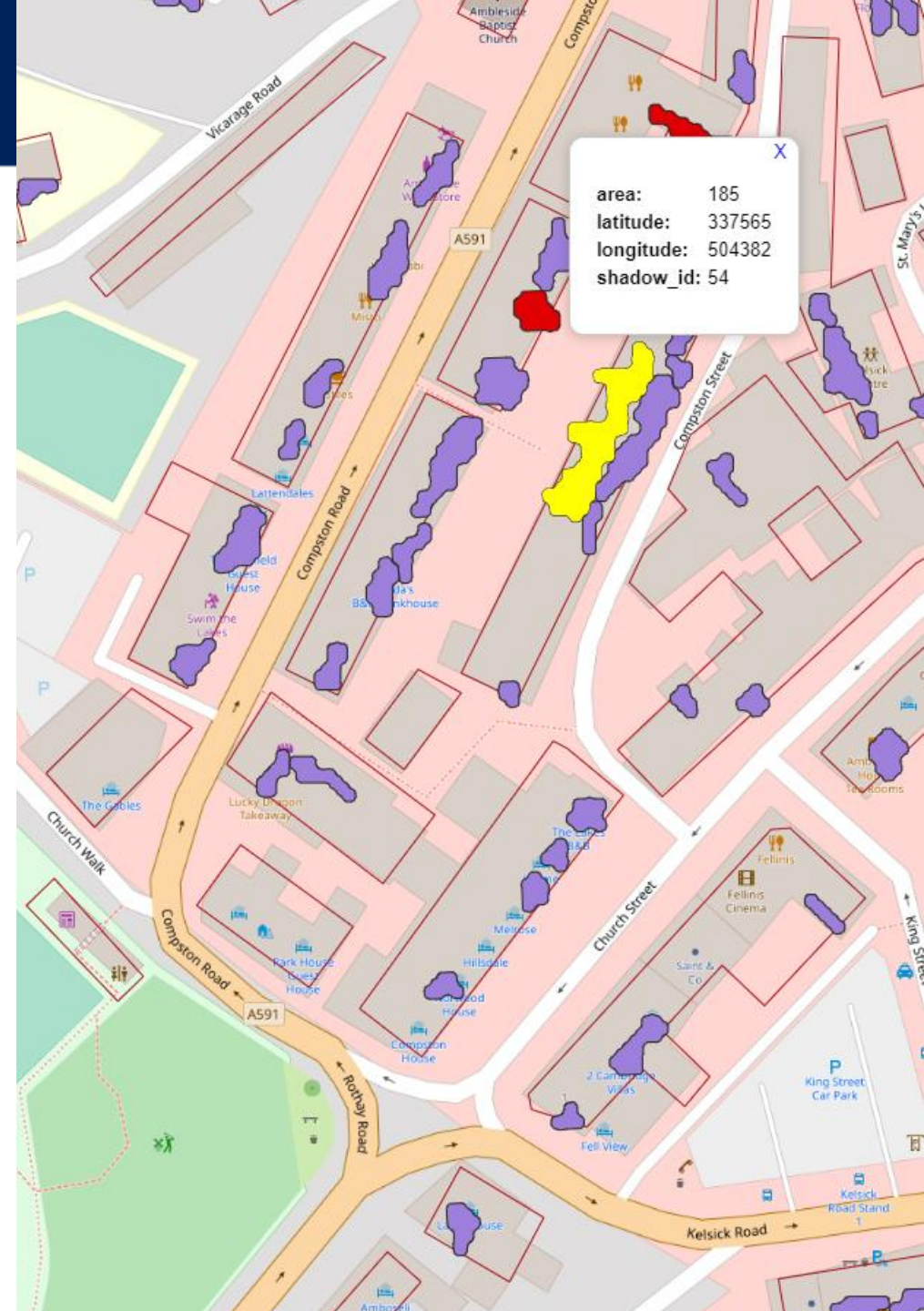
# Solar PV Mapping

Develop with associates of the Lancaster University

- Creates 3D model of an area
- Using LIDAR data, satellite images and OS Maps

*Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground.*

- Detects roof spaces
- Calculates potential of solar PV on those roofs, considering pitch, orientation and over-shadowing
- Identifies whole town potential
- Identifies good sites for solar
- Interactive map is also an engagement tool



# Ambleside to Zero community solar PV projects

## Solar Made Easy in the Lakes

**Who is it for?** – individual home and business owners.

**Purpose** – take the effort and uncertainty out of investing in solar PV by finding a preferred installer for the community

**How does it work?** – direct relationship and payment between homeowner or business owner and installer. Independent support and facilitation provided by the project.

**Added benefits** - collective action builds momentum and peer-to-peer support and promotion. Gateway for further climate action.



**Who is it for?** – larger community buildings (3 identified as suitable).

**Purpose** – a post-subsidy solution to community energy, using national economies of scale.

**How does it work?** – solar PV installed by Big Solar Co-op, funded via national share offer, electricity sold to building owner at discounted price for 30 years.

**Added benefits** – visible flagship projects in the heart of the community. Inspire action by others.







# Low carbon heat, village scale approach

## Kate Gilmartin





## Community Low Carbon Heat

Kate Gilmartin, Rural Community Energy Fund  
delivery officer

# Achieving Net Zero Carbon: no ifs, not buts....

Action has to **happen now** – we're at 1.2oC. The world's “**carbon budget**” will be blown in 10 years if the current rate of emissions continues. The **next 5 years** are key.

Whole system transformation to a low carbon economy:

The change will need:

1. Framework for delivery
2. Investment – Oldham estimates **£5 billion!** (Total private pension wealth in Great Britain was **£6.1 trillion** in April 2016)
3. Large scale grass roots engagement – an equitable transition
4. Extra capacity/ resource to enable all of the above!

# The Rural Community Energy Fund

- My role is to support communities to bring forward potential projects;
  - *Stage 1 – feasibility grant up to £40k*
  - *Stage 2 – Development grant up to £100k*

Grant funding for 15 projects so far:

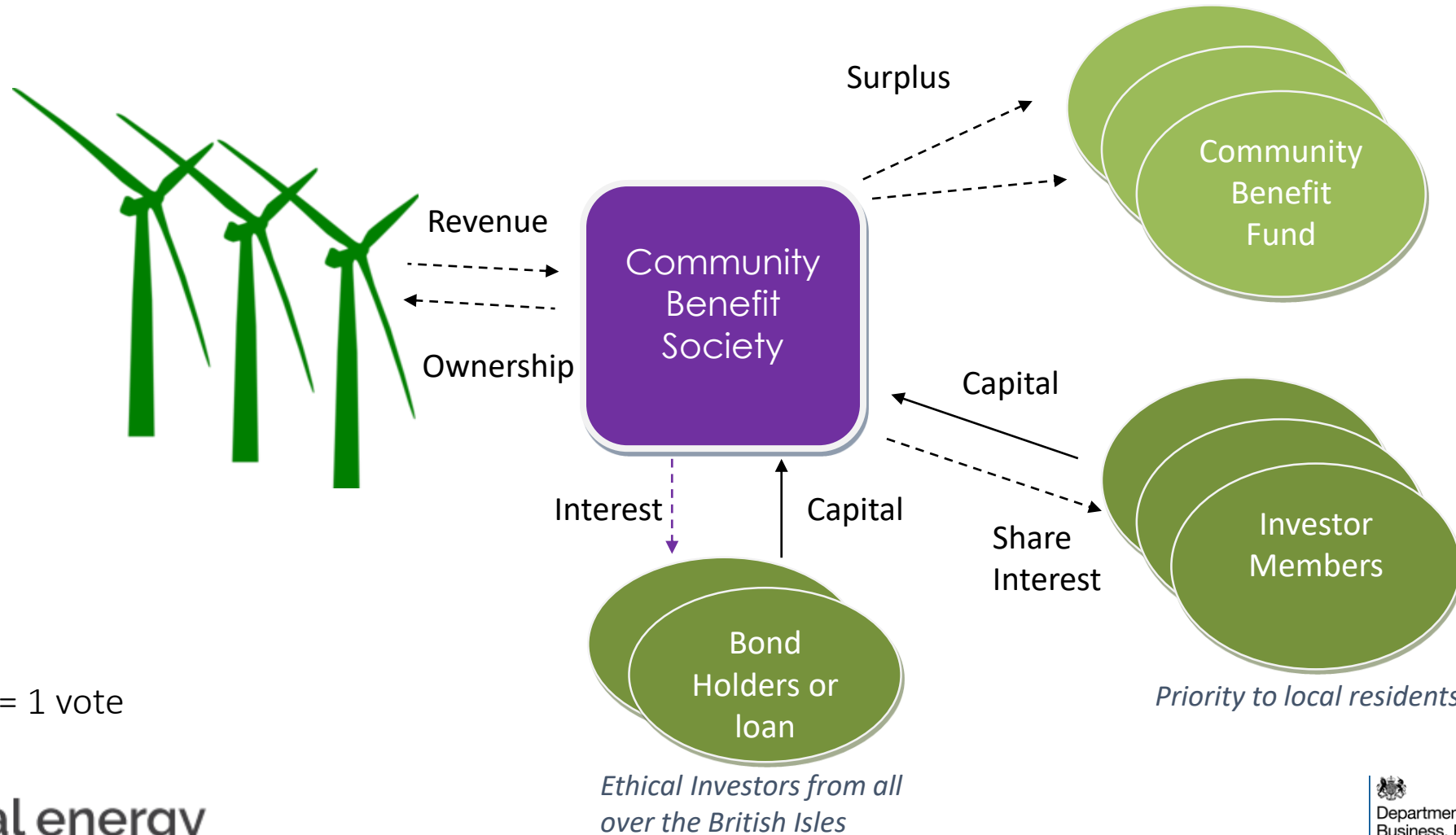
- 5 Ground mounted solar projects
- 4 Low carbon heat network projects
- 2 multiple technologies over multiple buildings
- 1 village wide solar project, Ground and building mounted
- 1 High head Hydro scheme (water travels down a long hidden pipe to a turbine)
- 1 Low head Hydro scheme (on river turbine at a weir)

# Why is community level action so important?

- ***Community level action is key*** for the UK to meet Net Zero Carbon – 40% of the UK emissions come from households
- Collective action will be cheaper, faster and more effective.
- We need localised energy solutions.
- Community action leads to collaboration, networks and knowledge transfer.
- Communities need to become more resilient: flooding and extreme weather.
- A just and equitable Net Zero transition

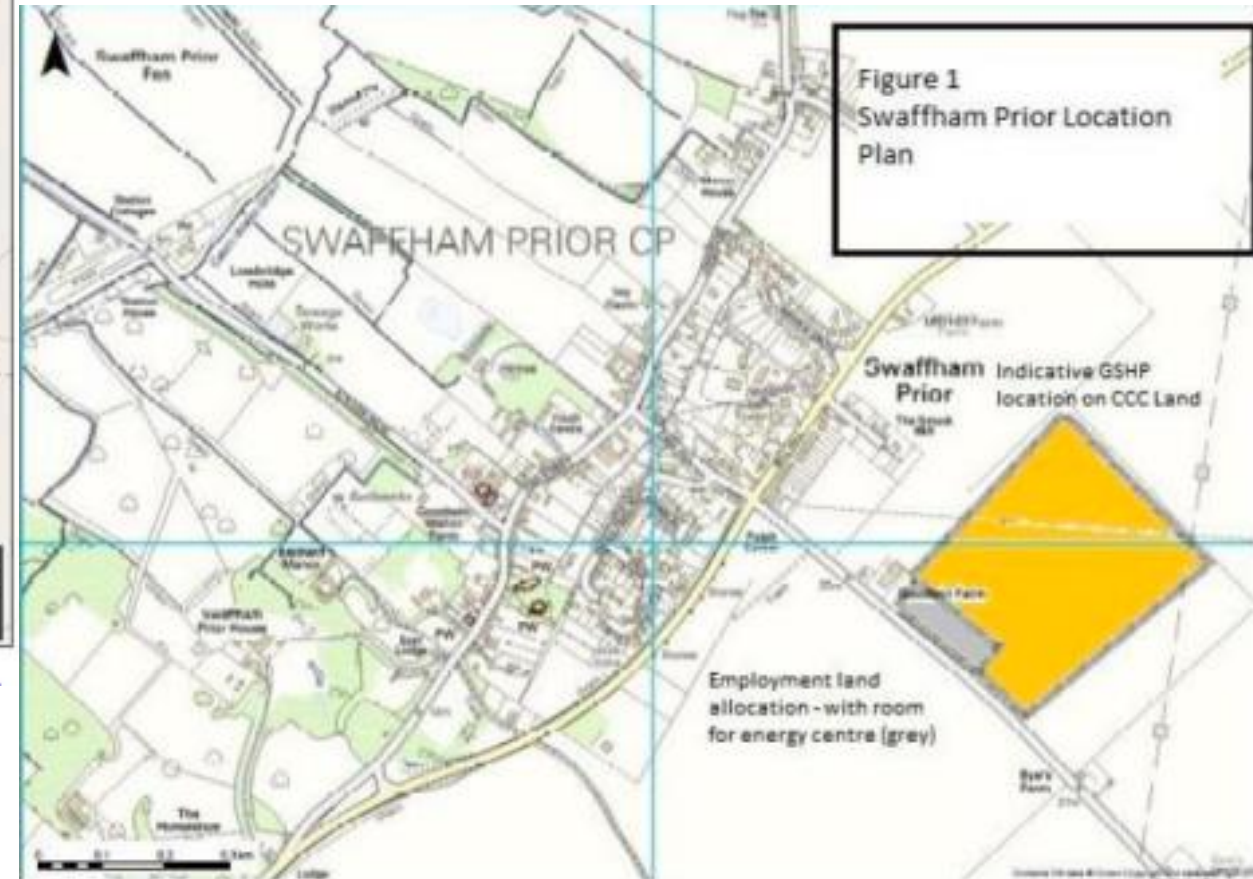


# How? Community Energy Projects

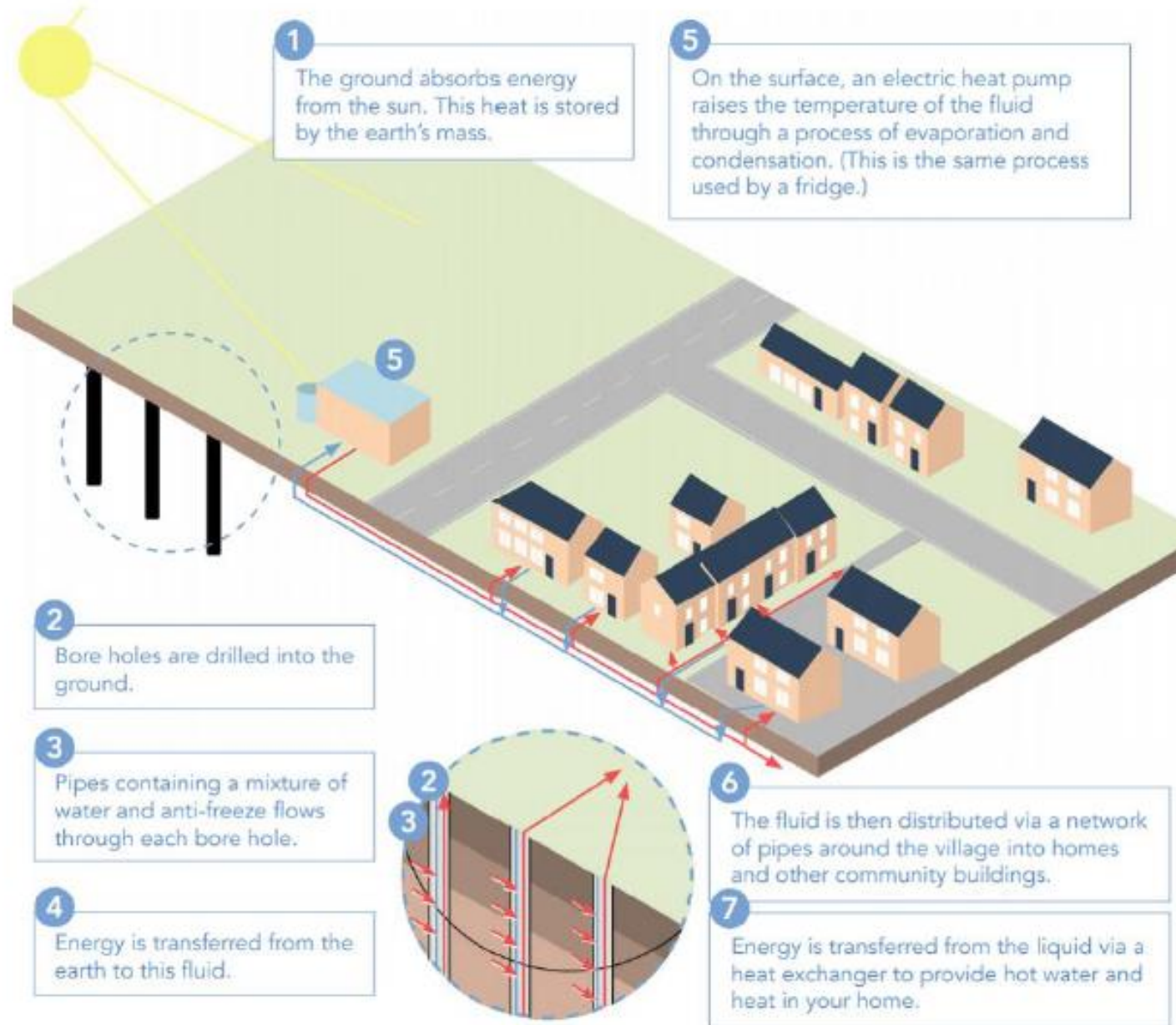


1 member = 1 vote

# Swaffham Prior Story.....



# Community heat schemes





# CambridgeshireLive





# CambridgeshireLive





# Pros....

100% Renewable Heating and Hot Water Source for Residents

300 Off-gas Homes with Access to Network

1,052 Tonnes of Carbon Abatement over 10 years

Improvement of local air quality: Eliminating sources of air pollution.

Scheme will generate a long-term revenue through the sale of heat to residents,

Potential to subsidise revenues through carbon trade (but not yet.....)

Heat provided be no more costly to residents than fuel oil

Eliminate the need for stored fuel

Sidesteps the increased price volatility from fossil fuels

# Pros....

Swaffham has a no-upfront cost for households – no price barrier - equitable, not leaving members of the community behind - collective responsibility (increased since covid??)

Enabling delivery – key respected community members

Move the social norms - collective schemes increase the perspective that the new tech is nothing radical

‘working with’, rather than ‘doing to’

Collective solutions will be cheaper & more efficient - Grid reinforcement costs alleviated

Scale means Funding - Green Heat Network Fund

# Cons....

Complicated energy project

Economics only work if large proportion of village houses connect

Little UK experience of retrofit District Heating into existing detached / semi detached housing – common in Scandinavia

Probably too small for private sector to be interested - can't leave to the market

Need large area of land for Bore holes

Concern 'what if it doesn't deliver?'

Perceived to be very radical – how to discuss with the community

Pioneering isn't always a good thing

Why should communities lead, surely Gov should?

What is the 'do nothing' scenario

# Chipping Village:

- Copy cat project
- Off gas grid
- Mostly on oil
- How to go low carbon?
- RCEF feasibility
- Individual or community?



# Do nothing scenario...

Ad hoc installations

ASHPs for homes without access to land

GSHPs where land available

ASHP less efficient (more expensive) – larger impact on grid (along side EVs)

Fossil Fuel prices volatile

Grid reinforcements – expensive & goes on our bills across NW

Non replacement of oil boilers (consultation coming)

Grants for ASHP £5k GSHP £6k – doesn't cover costs

It's complicated.....!



# Kirby Stephen Low carbon heat:

22 affordable homes

Kirby Stephen on the gas grid

RCEF: feasibility grant

Shared ground loop and borehole/  
ASHPs

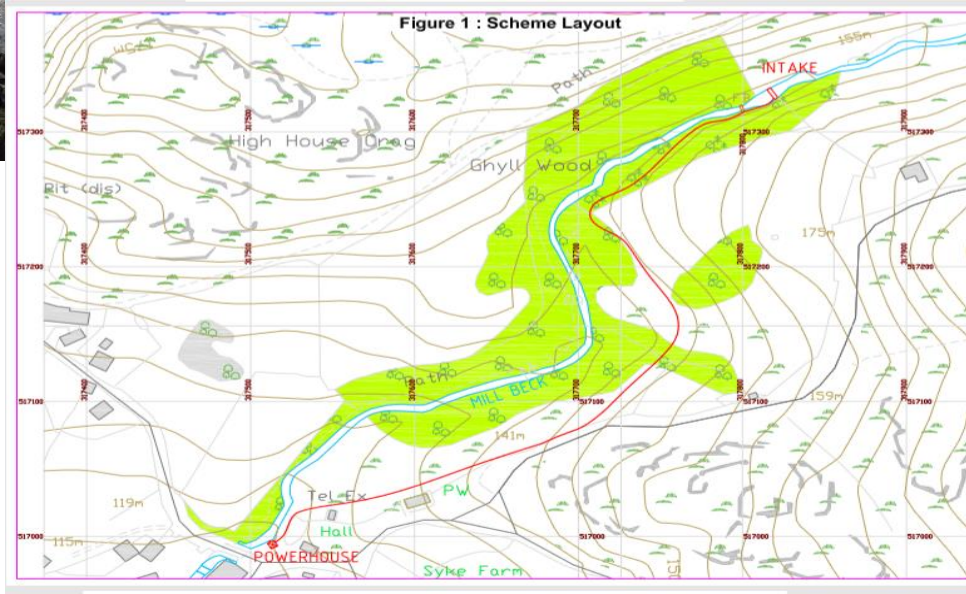
Potential solutions beyond the new  
housing?

‘Ripple effect’?









# Buttermere hydro

45kW High Head Hydro

Private wire to the hotel

Can we replace oil for Heat Pump?

Can install EV?

What are the solutions to Grid capacity issues?

Smart Charging, Demand Side Response

What about longer-term net zero?

# Your community.....?

Local knowledge?

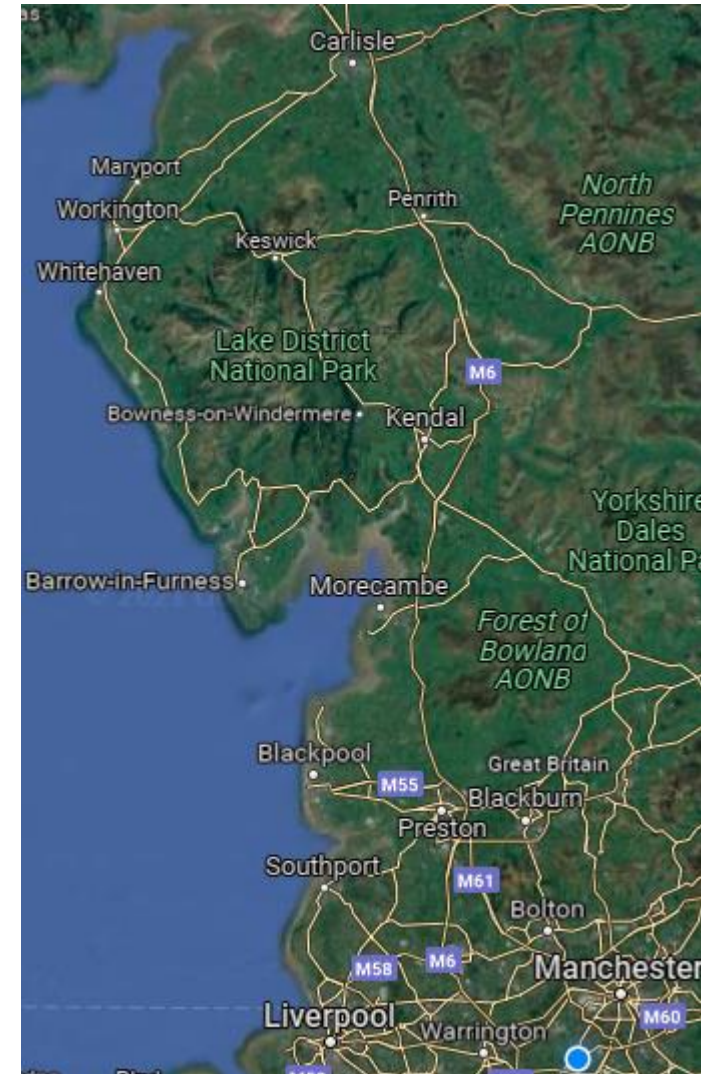
Local land owners?

Local motivation?

Local revenue?

Community wealth building?

Low carbon ripple effect!



# Conclusion

- Community energy empowers people to engage in low carbon action.
- Delivers local assets, democratisation of energy and community benefit.
- Additional value... social impact, fuel poverty alleviation, trusted messengers...
- Community action networks have the ability to mobilise and be resilient.
- Community wealth building – local revenue generating assets
- Low carbon ripple effect!
- ‘working with’, rather than ‘doing to’



# Thank you & questions?

Get it touch with me and I can help scope potential projects or discuss ideas;

[Kate.Gilmartin@Lancashire.gov.uk](mailto:Kate.Gilmartin@Lancashire.gov.uk)

07763 756549

The Community Energy England website is a huge resource for communities thinking about undertaking a project:

<https://communityenergyengland.org/>



# Community owned EV car clubs

## Susan Ross, JIJ Community CIC









Derwent Valley Car Club  
At the heart of our community



Community Connects Event  
Thursday 18<sup>th</sup> November

Susan Ross  
Derwent Valley Car Club



**WOULD YOU  
LIKE ACCESS TO A CAR  
WHEN YOU NEED IT...**



# Derwent Valley Car Club

- First solely electric vehicle car club in the UK!
- Community based rural car club in Blackhall Mill, Gateshead.
- Run by our members for our members.
- Launched January 2014, National Lottery start-up funding.
- Low-cost mobility solution without the expense of car ownership.
- Voluntary Driver Scheme.





# Collaboration – SOSCI Project

- Scaling On Street Charging Infrastructure, £4m Innovate UK project.
- Partnership of 11 partners including Cybermoor Ltd, Charge My Street, Durham County Council and MER.
- To develop 200 EV charge points across Northern England.
- Research how to create EVCP's in areas with limited off-street parking
- Develop 2 new car club hubs In Shotley Bridge and Rowland's Gill
- Opportunity to increase take up of EV's in communities



# 2020 – The year of behaviour change!

- COVID-19. Changed behaviours: desire to drive less, increased home working, decrease in public transport patronage.
- Requests for help setting up other car clubs across the UK.
- Widening interest in car sharing and alternative mobility solutions
- Almost half of adults will now permanently avoid public transport.
- Climate Gap report highlights need to change to full EV's ASAP!
- Car traffic forecast to grow 43%by 2050
- Congestion to grow 8-16%by 2050
- How do we reverse these trends?

**Clean,**  
**easy way to travel.**

Flexible use of an electric vehicle **WITHOUT THE COSTS** of owning your own.

**Benefits**

- Save money.
- Convenient and flexible.
- Simple online booking.
- Environmentally friendly.
- Run by the community, for our community.
- Easy and stress free!



Derwent Valley  
**Car Club**

find out more visit [www.facebook.com/derwentvalleyclub](https://www.facebook.com/derwentvalleyclub)

**derwentvalleyclub**



# Benefits of a Car Club

- Convenient, flexible, available when you need it!
- Members can save over £3,500 per annum compared to running your own car.
- No worries about insurance, servicing or costly repair bills.
- Carbon neutral, reduces our impact on the environment. One car could replace as many as 20 private cars!
- Voluntary Driver Scheme reduces social isolation.





# Voluntary Driver Scheme

- Supports members of the community who are unable to drive.
- Essential service to access hospital appointments, shopping, and social activities.
- Drivers fully trained, inducted and DBS checked.
- Relaunching post Covid-19.
- Reduces social isolation.





# What does it cost?

- £5 per month membership fee or £60 per annum.
- Joint and visitor memberships available.
- £4 per hour rental, for first three hours then £3 per hour
- Discounted rates for longer hires.
- No additional mileage fees.



# Member Feedback

Access to another vehicle when I need it!

Another option to buses with restricted routes. Having it to cross valleys is extremely liberating. Opens up a world of possibilities.

I'm absolutely loving having access to the car. It's such a great resource.

Very convenient, much better than public transport. Car is easy to use and charge!

I wanted to travel in an environmentally way and to have an adventure!



# Development of Car Club's

- Community need – established and evidenced.
- A community anchor organisation.
- Grant funding support and low overheads.
- Population, for viability. 5-min walk urban, rural up to 20 mins.
- Links to other forms of transport is essential.
- Integral service e.g social events and classes.
- Recognised in the context of the climate emergency and pressure on mobility in rural areas.
- Potential income generator for EVCP operators as a 'sitting tenant'.
- Partnership working, sharing and collaboration





# Future Plans

- Improve rural mobility, reduce isolation, support rural transport choices for residents in the Derwent Valley and beyond!
- Reduce carbon emissions by developing more environmentally friendly car club hubs.
- Network with Local Authorities to synchronise activities and reduce rural transport deprivation.
- Work with LA's and CPO's to encourage communities to develop sustainable EV Car Clubs.
- Increase usage of Voluntary Driver Scheme Post Covid-19.





# Future Plans – Nationally

Development of a National Car Club Co-operative to connect Local Car Clubs and support with:

- Telematic Enabled Vehicles
- Keyless Access Systems
- Cooperatively Owned Technology
- Collectively Pooled Back-Office
- Reducing Insurance Costs
- Community of Practice
- Network Effects





# Contact details



[@Derwentvalleycarclub](#)

Email: [jljcommunitycic@gmail.com](mailto:jljcommunitycic@gmail.com)



Funded by  
**Innovate UK**





# Useful Links:

NE – Electric Cars Info point: [www.ne-electriccars.co.uk](http://www.ne-electriccars.co.uk)

Charge My Street – [www.chargemystreet.co.uk](http://www.chargemystreet.co.uk)

<https://get-green-now.com/why-are-electric-cars-important/>

Fully Charged Blog – [www.fullycharged.show](http://www.fullycharged.show)

EV Database – <https://ev-database.uk/>

Gov. OLEV Grant – <https://tinyurl.com/y9fyagdw>

EV and Infrastructure Briefing paper - <https://tinyurl.com/y9m9szta>

Gov. Transport Decarbonation Plan - <https://tinyurl.com/y7tzhb4a>

Zap Map – [www.zap-map.com](http://www.zap-map.com)



local energy  
north west hub

# Question and Answers





- Would you be interested in taking part in a topic specific workshops?

Yes / No

- How frequently would you like to meet?

Monthly

Bi-monthly

Other

What topic workshops would you like to attend?

- EV car clubs
- Local community owned energy generation eg PV on community builds
- Low carbon heating
- Carbon foot prints for communities and action planning
- Community engagement
- Funding and finance

Can you provide any support to help convene or run a working group?

Yes / No



- How useful did you find today's event?
  - Very useful
  - Useful
  - Neither useful or un-useful
  - Un-useful
- 
- Do you have any feedback for our future events or activities?

Free text box





## Net Zero and Flexibility in the North West

How businesses can cut carbon and generate income through flexibility services

Our networks are becoming smarter and more flexible as customer requirements and new technologies are changing the way electricity is generated, distributed and consumed.

This workshop will provide an update on:

- our transition to **Distribution System Operation**,
- an overview of our latest **flexibility requirements** and how to get involved
- an introduction to our **decarbonisation strategy** as we continue to lead the North West to Zero Carbon.

Friday 3rd  
December  
2021 10am  
– 12pm

Register at  
[www.enwl.co.uk/events](http://www.enwl.co.uk/events)

**12.00-12.30 - Networking**

**3 x 10 minutes in smaller groups**

**Keep up to date**

**Sign up for our newsletter**

**Visit the community and local energy section of our website.**

**[www.enwl.co.uk/communityandlocalenergy](http://www.enwl.co.uk/communityandlocalenergy)**