

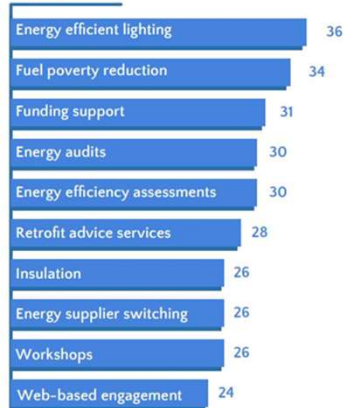


Derbyshire Dales Community Energy

Steve Martin
July 2023

Number of groups working to engage their local community in energy efficiency improvements across the UK

Top 10 activities



£2.9 million saved

on consumer energy bills through community energy action in 2020



£893,000

spent by community energy organisations on energy efficiency improvements in 2020



45,795 people

helped by the energy efficiency activities of 89 groups in 2020



Community Energy: State of the Sector 2021



Motivating factors and Achievements



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What is community energy?

Any energy project or scheme that is wholly or partly owned and controlled by the local community and which has wider community impact.

Community energy has a key role to play in the transition toward a more efficient, low carbon, decentralised energy system.

All surplus profit is used for community benefit such as fuel poverty projects.

Community energy is democratic and allows for active participation in local energy systems.



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Our Path

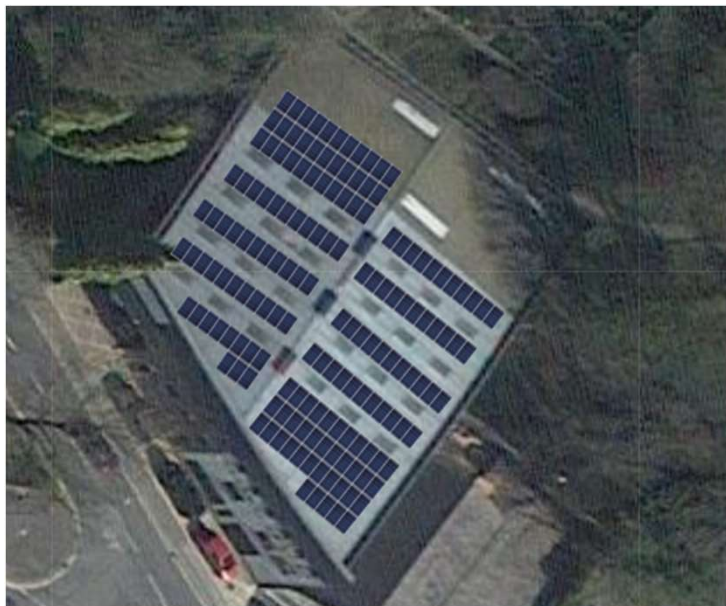
- ▶ 2020: established Derbyshire Dales Community Energy
- ▶ 2021: received Rural Community Energy Funding Phase 1 for £40k in partnership with Matlock town council
- ▶ January 2022: incorporated as a Community Benefit Society
- ▶ 2022: received Rural Community Energy Funding Phase 2 for £70k to take potential sites to investment ready status
- ▶ 2023: went into partnership with the Big Solar Co-op in order to deliver on the sites identified using the RCEF grants



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Identified by RCEF Phase 1

Twigg Stores
60kWp array



Highfields School Upper Site
256kWp array



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Generation Statistics

	Twigg Stores	Highfields Upper
System size (kW)	70	150
Carbon saved (tCO ₂ e/yr)	14	32
Annual electricity generation (MWh)	59.64	137.35
Proportion of total electricity provided (%)	80	36
Proportion of total roof area (%)	83	40
Initial Incremental Cost (£)	87,500	187,500
Annual O&M cost (£)	427	915



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Chosen sites

- ▶ Based on onsite consumption, site engagement, roof structure.
- ▶ Other factors to consider include what capacity there is available in the local grid.



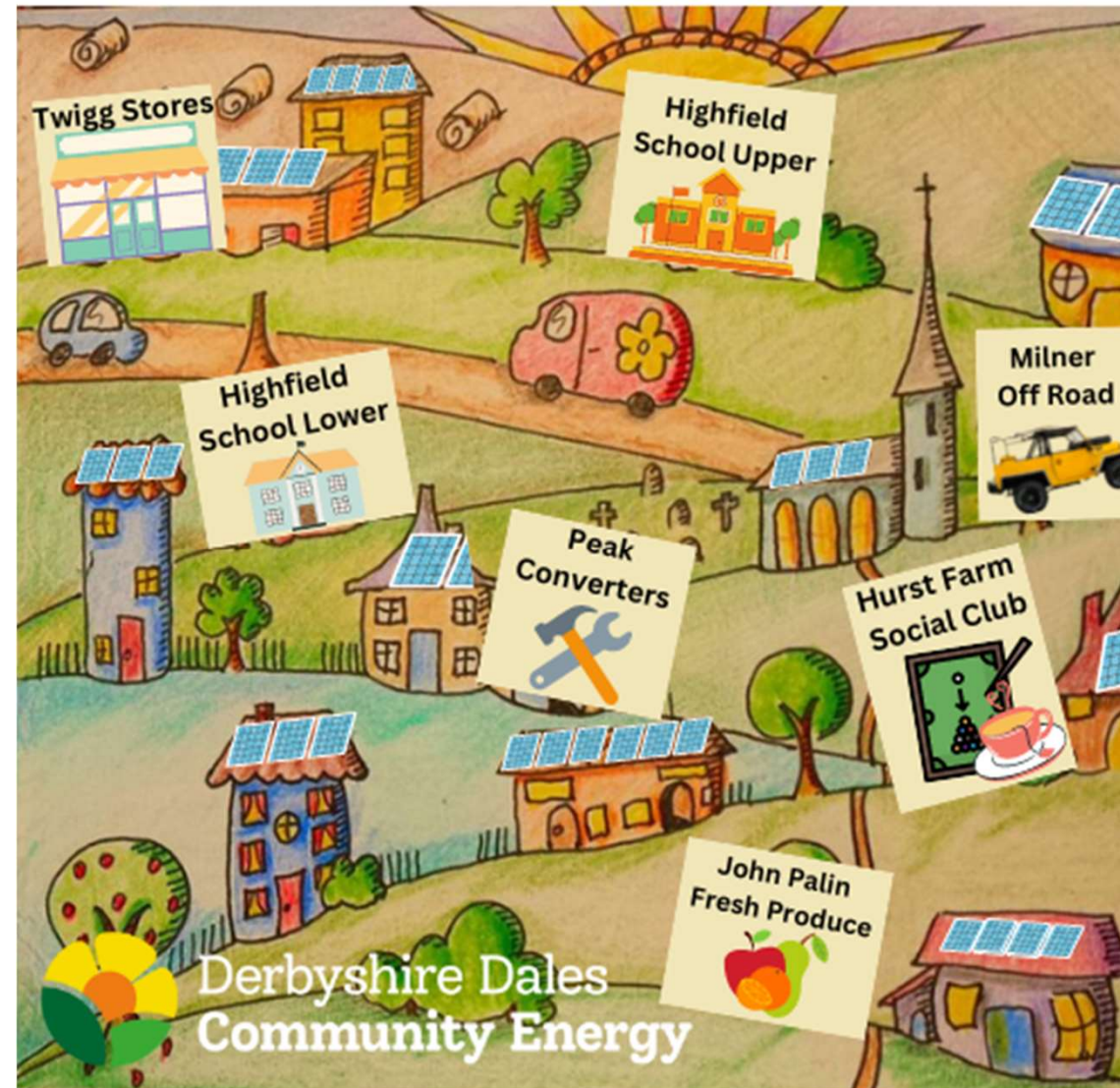
Project outcomes from Phase 1 funding

- ▶ Establishment of a community benefit society
- ▶ Apprentice seconded from Octopus Energy
- ▶ Raised awareness of community energy in Matlock
- ▶ RCEF Stage 1 report showing two viable sites in the town
- ▶ Potential pipeline of sites in Matlock and beyond



RCEF Stage 2

creating a bigger portfolio of sites



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PORTFOLIO TOTALS

- ▶ 963kWp total installed capacity
- ▶ Producing 826MWh per year – enough for almost 300 houses
- ▶ Saving 450 tonnes of CO₂ per year
- ▶ Cost savings estimated at £1m over 20 years



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Why Partner with the Big Solar Co-op?

- ▶ Ability to raise funds via share offers to the local community
- ▶ Have the technical skills to install solar panels
- ▶ Have the administrative skills to manage the panels and investment for the 25 year life span of the panels
- ▶ Are a co-operative, like ourselves, who believe in working for the benefit of the community rather than only shareholders
- ▶ Support the ethical sourcing of solar PV panels



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Big Solar Co-op

A Carbon first co-operative

- key aim is to combat climate change by reducing carbon emissions.
- Achieving their mission of 100 MW means saving nearly 25,000 tonnes of CO₂ emissions a year (equivalent to driving 250 million miles by electric car).
- surplus is reinvested in building more solar installations.
- Hundreds of thousands of suitable buildings in the UK don't have solar PV - unlocking their potential could contribute 5GW solar capacity.



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Investor
Members



Volunteer
Members

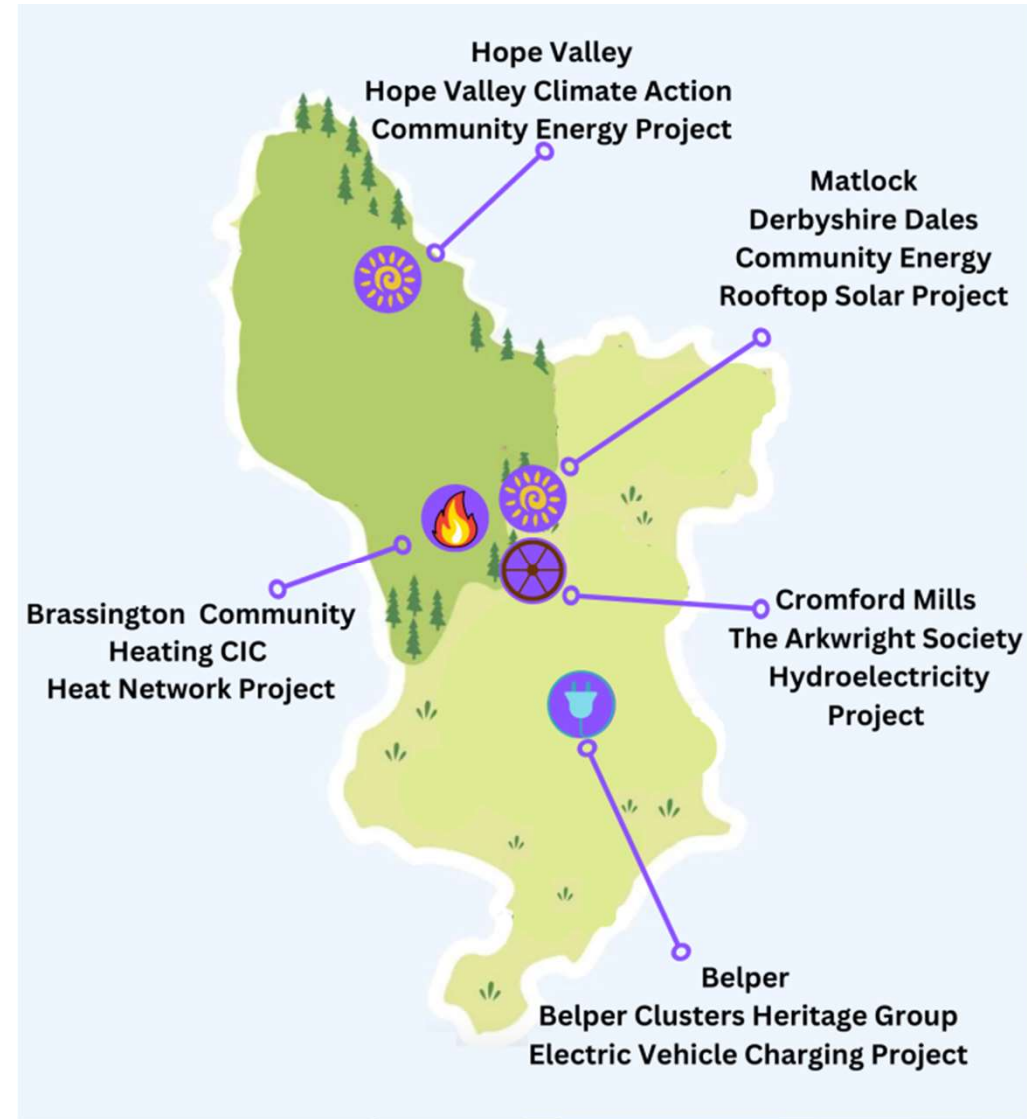
Building the capacity for community energy across Derbyshire

- General information and advice/training
- Technical information and resources
- Informal planning advice & support
- Financial advice - e.g. Banking
- Local Solar PV installers
- Establishing a Benefit Society
- Bidding for additional funding
- Support for smaller socially desirable installations e.g. Hurst Farm
- Volunteer time
- Community engagement on decarbonisation
- Collaboration on site selection and assessment, for example:
 - Roof surveys
 - Digital renewable energy generation mapping
 - Financial community benefits.



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Celebrating Community Energy across Derbyshire



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Where we are now

- ▶ We want people to invest with the Big Solar Co-op, so they have the funds to install solar panels on the sites that we find
- ▶ We need more volunteers who can help identify new sites and work with the Big Solar Co-op to get them installed
- ▶ We need more volunteers who can help build capacity for community energy projects across the East Midlands



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Investing Big Solar Co-op

- is completely owned by members of the public, who either volunteer their time, invest, or both.
- Investor Members own shares in a portfolio of projects across the UK helping to spread the risk.
- a different kind of return: environmental, social *and* financial.
- a fair rate of interest over and above the bank base rate.
- Investment starts at only £100

Sign up at bigsolar.coop/invest



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www.derbyshiredalesenergy.org.uk

