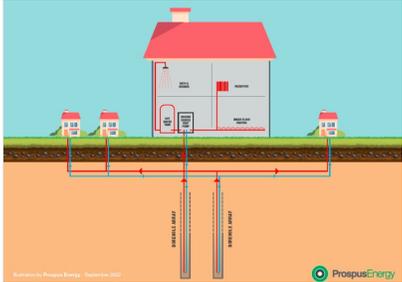


Chipping Community Energy

RCEF Stage: 2

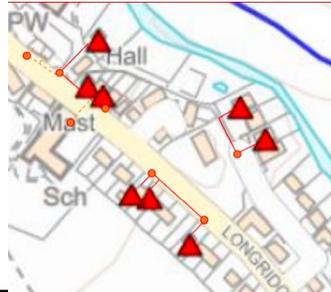


The working group



A cluster solution

An emerging cluster of interest



The Story

Chipping is a Lancashire village of around 300 households which is off the gas grid and so domestic heating is mainly from oil, LPG, direct electric and coal. In response to national government pressure to move away from carbon-dense heating systems, and with support from the NW Energy Hub a group of volunteers is leading a feasibility study to understand whether clusters of ambient loop ground-source heating systems could form the backbone of a viable lower carbon solution. We were successful in securing RCEF funding and have appointed Prospus Energy to provide technical support to our project which we expect to complete by April 2023. We hope to move beyond feasibility into implementation with an aspiration for the village to own the ground collection loops as an asset for community benefit.

Challenges & Risks

The challenges and risks fall into four categories:

- Technical feasibility* – e.g. Is the hydrology suitable? Is the supporting infrastructure sufficient? Is housing stock adequate?
- Planning* – e.g. Can we get support from the planning authority in the Conservation Area within the Area of Outstanding Natural Beauty? Landowner and Highways Authority support for collector sites?
- Community Engagement* - e.g. Are enough households sufficiently interested to support surveys and eventual implementation? Can suitable clusters of houses be identified?
- Business Model* - e.g. Can a viable business model be developed which delivers alternative heating at competitive costs to households and acceptable risk? Can a community ownership vehicle be designed which manages risk and delivers value for the village?

Lessons Learned

Our Stage 1 feasibility study was narrowly focused on high-temperature heat loops, which proved uneconomic for Chipping. We learned that solutions are very dependent on specific circumstances and projects should be careful when narrowing down technology choices. Although we believe ambient temperature ground source is likely to be the most viable option we are open to bringing in other low-carbon solutions such as solar PV-thermal electricity generation.

Key Facts	
Community of around 300 households	Very varied housing stock Heating technologies mainly oil, with direct electric, LPG and coal in the mix.
Infrastructure	Off gas grid; 2MW electricity supply to village.
Planning Constraints	AONB and Conservation Area
Community Benefits	Access to ground source collectors; Aspiration for community owned asset base.

Key Figures

Project size:	C 300 households
Tech type	Ground source heat pumps
Energy Generation	[800-1000 MWhr per annum]
Private finance leveraged	Funding sources will be identified as project progresses.
CO2 savings	[55-75 Tc per annum]
RCEF grant	£100,000

Further Notes

LEP area: Lancashire

Link for further info: [Chipping Community Energy](#)