

Barningham Net Zero Project

Project Background

After becoming concerned about the rapidly developing climate emergency and initial involvement in a local climate transition group in Barnard Castle, we decided to look at what we could do in our own local community. Barningham is not on the gas network and has a great reliance on oil. It therefore seemed to be the right time to examine the potential for a project to address the global climate issues where we are able, i.e. locally.

The goals of any project have to be of benefit to residents, whilst reducing carbon emissions, reducing our reliance on fossil fuels and eventually achieving net zero in our community. Probably the measures having the greatest potential towards achieving these goals are alternative energy sources for powering and heating homes and improving energy efficiency, particularly in old stone-built houses, as are many in Barningham.

Private and community alternative heat sources include biomass and ground and air source heat pumps, whilst alternative electricity generation sources include wind and solar power. For Barningham it would be possible to take advantage of a combination of some or all of these energy sources to achieve the goals and even to generate revenue within the community. Such revenue in the medium to long term could be made available to the community for energy efficiency improvements to housing, such as insulation, draught proofing and double glazing.

Burning biomass wood-chip or pellets and logs for firewood from sustainable sources is obviously preferred to burning fossil fuels. There are several biomass installations in Barningham, both private and community. Expansion of the community scheme and implementation of new schemes is possible, although less financially viable than it once was. There are also housing development schemes in Barningham, one of which, at Hill Top Farm, includes a scheme for ground source heating. This could be expanded to provide heat for homes on the South side of the village.

Wind power electricity generation schemes have been proposed on Barningham Moor before by the land owners. A community wind powered scheme would still require land, probably from the Estate. The political and environmental climate has changed and turbines have become more efficient since that time. There are now examples of community electricity generation schemes implemented in small communities, where the generation has provided significant returns to the community. Whilst sensitive siting in unobtrusive locations is key, these facts may result in increased acceptance of any residual visual or noise impacts in the community.

There are private solar energy schemes in Barningham. A community solar energy scheme requires significantly more land than a wind powered scheme but would have less visual impact from the ground. Again, the predominant land owner is the Estate and provision of land would need to be balanced by a financial return from the community scheme.

There is grant funding available via the Rural Community Energy Fund (RCEF), which in its first stage would pay up to £40,000 for a feasibility study of available technical options, funding and economics and gauging community interest. If feasibility is demonstrated, a second stage of the RCEF grant would pay up to £100,000 for design development prior to full implementation of the scheme. The funding for the Feasibility Study means that there is no risk to residents of Barningham from undertaking the first phase of the project, making this a sensible way to start addressing the climate emergency as a community.