



Exploring community micro / minigrids as a pathway to decarbonisation

Communities across the UK are beginning to take control of their own energy destiny, relinquishing the full control of large corporations in favour of independent, community energy initiatives such as the development of small, but mighty micro and minigrids!

What is a micro / minigrid and why should we consider one?

A microgrid is a localised network that generates, supplies, and stores power, typically via a battery, to a specific area such as a neighbourhood and even to small islands. For example, Eigg in Scotland has developed the world's first community off grid electric system. Similarly, a new housing development in Bridport runs off a minigrid system where they can still draw power for the national grid if needed.

Both grid systems commonly use solar panels and wind turbines to generate energy, but mine water and geothermal heat are also increasingly being harnessed within County Durham. They can exist independently from the National Grid but can engage with it, when necessary, for example, if communities want to buy or sell more energy to meet their demands.

The benefits of micro / minigrids for County Durham:

Resistance to large solar and wind farms across the UK has been widely publicised. One of the major advantages of a micro grid is that it operates as a local source of energy, most often in collaboration with a community energy group, rather than a single residence. This reduces the need for huge, unsightly cables and pylons which often transmit energy to other locations.

Micro / minigrids would be particularly effective in the more remote areas of County Durham where there is a lower grid capacity, allowing communities more control to effectively plan their infrastructure, such as the installation of EV charging points, whilst experiencing an increased level of reliability and efficiency.

On a cost-saving level, energy can effectively be stored and can be sold back to the grid if there is an excess, enabling communities to have greater control of their own energy consumption and expenditure.

Further plans:

Durham Community Action is working with innovation experts at the Rural Design Centre to explore the potential of micro / minigrids for the region and draw upon experience of other community energy initiatives across the country.

Get in touch:

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