

This guidance has been produced to help community groups start renewable energy projects. Its intended to assist groups covering a wide range of interests: from the informal collection of individuals wishing to start something in their community; to well-established, constituted organisations linked to a community facility such as village halls, or with a wider purpose such as a community partnership or Development Trust.

Where to start

Start by developing an understanding of your community's needs, and what the motivations are for doing something. The reasons might include:

- Concern that the village hall is underused as it is cold and expensive to heat.
- Opportunity to provide an ongoing source of income and meet a wide range of community needs through a renewable energy project
- Concern to address climate change and do something to reduce greenhouse gas emissions
- Opportunity for the community to benefit by including a renewable energy project into plans for new development.

You will need to get together as a group to discuss ideas, decide the purpose of the renewable energy project, and what you want to do. Think about:

- What are your aims? What is needed?
- How this will be achieved?

- Avoid duplication! Is someone doing something similar and could you work in partnership?
- Who will be involved in making sure it happens?
- How will your activities be paid for? Will your project create an income?
- What liabilities might you have e.g. staff, property, assets

Learning from others

An increasing number of community groups have discovered that its possible to use renewable energy to benefit their community. The range and quality of renewable energy technologies available to generate heat and power continues to expand.

Large numbers of projects are up and running across the UK and particularly in Scotland, ranging from hydropower installations, micro wind turbines and solar technologies, to the use of biomass and anaerobic digestion, each helping to meet community energy needs. It is worth going to see a working example. ACT's Case Study on Community Renewable Energy gives two Cumbrian examples.

Understand your community's needs

- Why is the project needed?
- Who is it for?

Involve the whole community

- Do this early to raise awareness, avoid misunderstandings, and avoid duplication
- Full consultation on any community renewable energy scheme is essential

Choose the most appropriate solution

- Renewable Energy Sources: Wind / Solar / Hydro / Biomass
- Cost considerations: initial capital costs, ongoing fuel (biomass) / maintenance costs

Sources of Information and Support

- Learn from the experience of existing community renewable energy projects
- Many sources of support and advice available; technical, funding , project planning etc

Main sources of renewable energy

There are many potential sources of renewable energy but the main ones include:

- **Wind:** Turbines can be used to generate electricity.
- **Sunlight:** Panels or tubes can transfer heat to provide hot water; heat from the sun stored in the air, water or soil can be transferred through air, water and ground source heat pumps; photovoltaic (PV) cells can be used to generate electricity.
- **Water:** Hydro turbines can generate electricity; or waves/tide can be used to convert kinetic energy into electricity.
- **Biomass:** Combustion of wood can generate heat and potentially electricity via steam turbine; or the process of anaerobic digestion can use biodegradable matter to produce gas, heat and in turn the potential for generating electricity.

Considerations

Many sources of renewable energy, like the wind, are free. The main exception to this is biomass which can expect to have a cost in terms of sourcing pellets, woodchip or logs.

Despite the fuel being free or low cost, the capital investment required to harness the renewable energy can in many cases be considerable when compared to the more conventional, fossil fuel based systems. Also, renewable energy systems need to be regularly maintained in much the same way as any conventional system.

Establishing support

There are many misconceptions about renewable energy technologies. It is important not only to consult the community on any proposed renewable energy scheme, but to involve all interests from the earliest opportunity to ensure there is broad awareness of the options, a good understanding of what is involved, and how it will impact on the community. You may find ACT's 'Consultation and Participation' Guidance Sheet useful.

Sources of help

Investigating the potential for a community renewable energy scheme can seem highly specialised, too technical, with prohibitive start up costs. Fortunately there are some excellent sources of advice for communities, such as:

Community Renewable Energy Toolkit

produced by Community Energy Scotland for the Scottish Government:

www.communityenergyscotland.org.uk

Plan Local - Low Carbon Living an online toolkit produced by Centre for Sustainable Energy:

www.planlocal.org.uk/pages/low-carbon-communities

Hydropower - A guide for you and your community produced by the Environment Agency

www.environment-agency.gov.uk

Delivering community benefits from wind energy development: a toolkit produced by the Centre for Sustainable Energy

www.decc.gov.uk

Get Generating: A Renewable Energy Guide for Rural Communities produced by Action with Communities in Rural England (ACRE)

www.acre.org.uk/Resources/ACRE/Documents/Renewable_Energy_Guide.pdf

Community Energy Online is a resource developed to support local authorities and community groups in their role as initiators, supporters and developers of local low carbon and renewable energy projects.

ceo.decc.gov.uk

Other useful websites

www.energysavingtrust.org.uk



For more information please contact ACTion with Communities in Cumbria on Tel: 01228 817224 or visit our website: www.cumbriaaction.org.uk

ACT champions community and rural issues

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