

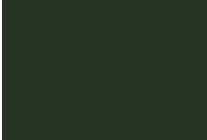
# People Powering Change: Community Energy Case Studies




In January 2014 the government published the UK's first Community Energy Strategy. Community Energy Strategy: People Powering Change acknowledges the important contribution that individuals and local communities can play in transforming the way energy is generated and used in Britain in order to maintain energy security, tackle climate change and keep costs down for consumers; and outlines actions to unlock the full potential of community energy.



In South Cambridgeshire, the council has been supporting community energy since 2009. By setting up and assisting the Sustainable Parish Energy Partnership, (SPEP) the council has helped more than 30 parishes to organise projects to promote using energy more efficiently and less wastefully, and to install small scale renewable generation technologies.



As the government's Community Energy Strategy is implemented, it should become easier for communities to undertake more ambitious energy projects. The council is committed to engaging and empowering local communities in South Cambridgeshire; in the first instance by raising awareness of the different types of community energy projects; what is involved and what the benefits for communities are.



This document describes six case studies of local community energy projects, some completed, others in process, each very different. They range from home energy saving, through solar schemes and a wind turbine, to a fledgling hydro scheme.



If you are interested in embarking on a community energy project, see information signposted after the case studies, and feel free to contact the council's Parish Energy Project Officer to explore what support the council may be able to offer.



**November 2014**

# Case Study 1

Energy Advice and Behaviour Change - volunteer run projects available through SPEP  
[www.spep.net](http://www.spep.net)

## Overview

The Sustainable Parish Energy Partnership was set up by SCDC in 2009 to support parish councils wanting to make their parishes more sustainable.

Volunteers in over 30 parishes run a variety of projects to provide advice and information to residents to help them save energy through behaviour change and home energy improvements.



*Sustainable Cottenham's Energy Saving Advice stall at the Fen Edge Festival*

## Financing

- Resources such as Thermal Imaging camera & training, Electricity Monitors and Light Bulb Libraries are provided free of charge to participating parish groups by SCDC
- Some events are self-financing; funds are available where needed from SCDC

## Project impacts

- 15** village events held
- 1000+** people have attended village energy days
- 355** homes surveyed using thermal imaging
- 670** electricity monitor loans made

## Main projects

- Evening Information meetings
- Advice stalls at village events
- Weekend 'Village Energy Days'
- Thermal imaging surveys
- Electricity monitor library
- Energy Saving Light Bulb library

## Of interest to...

Any parish council in South Cambridgeshire can join SPEP and avail themselves of the support and resources on offer.

# Case Study 2

## Community Involvement in Energy Saving Programmes - Action on Energy

[www.actiononenergy.net](http://www.actiononenergy.net)

### Financing

- Action on Energy is a partnership of the Cambridgeshire local authorities with energy efficiency company, Climate Energy Ltd
- The scheme offers households in the private sector advice, access to funding, good value home energy surveys, and quality installations of home energy improvements.
- The scheme is set to run for an initial three years (launched November 2013).

### Overview

- A Community Champions scheme is in development. This will reward community groups who register with the scheme with a sum of £15 for each lead resulting in installation of measures.
- The sum will be payable to the group if formally constituted, or to a charity chosen by the group.



### Project impacts

- The scheme has government funding to support installation of solid wall insulation in around 1000 homes in Cambridgeshire, leading to significant energy savings.
- The contract requires Climate Energy Ltd to work towards using 100% local assessors and installers.

### Community Involvement

- The scheme has been promoted by parish councils and SPEP groups through village newsletters, websites and social media.
- The scheme has government funding for solid wall insulation; Information evenings and stalls explaining what solid wall insulation is have been held in a number of villages.

### Main projects

Any community group or parish council can apply to participate in the Community Champions scheme.

# Case Study 3

Renewable energy - eCoton go solar! Bulk discount scheme for solar pv

[www.cotonvillage.co.uk](http://www.cotonvillage.co.uk)

## Overview

A group of green-minded Coton residents set up a bulk purchase scheme in order to increase local uptake of solar pv panels.

## Key features

- The scheme organisers collected a list of over 100 interested households through leaflets, posters and a village meeting.
- They then invited 7 local solar PV installers to submit tenders for consideration, and from those submitted, selected the one they felt offered the best deal for the group.
- Another village meeting was held at which the bulk purchase group was introduced to the chosen supplier.
- Households going on to purchase panels through the scheme entered into individual contracts with the company.



Pupils at Oakington primary school with solar panels provided free of charge through the eCoton bulk

## Of interest to...

The eCoton group was particularly successful as it operated when the feed in tariffs were at their highest. A similar scheme set up now would probably not achieve so much, but might nevertheless be worth doing.

## Project impacts

- The scheme led to at least 75 installations of solar pv in Coton and nearby villages.
- The main benefits for those installing pv through the scheme were:
- The supplier offered to install solar panels for free on local school if a target number of installations took place. They did, and Oakington school were the lucky recipients. (It was originally envisaged that Coton school would receive the panels, but this proved not possible due to structural reasons.)
  - Support from the eCoton team and other members of the scheme through the process
  - Recommendation of a carefully selected installer
  - No high pressure sales – members were free to choose other suppliers



# Case Study 4

## Renewable energy - Gamlingay Community Wind Turbine

[www.gamlingay-community-turbine.co.uk](http://www.gamlingay-community-turbine.co.uk)

### Overview

- The turbine went into operation in June 2013, five years after the project was initiated by a group of local residents.
- It operates under a private company structure and is owned by residents and businesses in the local community



### Project impact highlights

- Expected generation of 665,000 kWh pa
- Equivalent to about 10% of local domestic electricity needs
- The project has overcome local concerns; a vocal minority opposed planning permission
- 10% of net income generated goes to a Community Fund for reinvestment into local environmental projects. This amounted to £6,000 in the first year.

### Financing

- Total cost £900k
- Funded entirely by investments from within the local community
- Two investment options have been offered:
  - Fixed interest loan at 6%
  - Equity investment – projected rates of return 7-12%
- £30k was invested at risk to get the project through the planning process

### Main projects

Setting up a community wind turbine is a major undertaking, not to be undertaken lightly. However, this project demonstrates that, with a strong team with the right skills, a successful project can come to fruition, bringing many benefits to the local community

### Key features

- The turbine is an Enercon E-33
- It has a 37 m mast
- Installed capacity is 330kW

# Case Study 5

Renewable energy - Reach Community Solar Farm

[www.reachsolarfarm.co.uk](http://www.reachsolarfarm.co.uk)

## Overview

- Planning permission has recently been granted for this community solar farm, to be owned and run by a co-operative of local people.
- The farm is expected to generate approximately as much electricity as is used by houses in the village each year



## key features

- 500kW: approx. 2000 ground mounted solar panels
- The site is on a local farm ½ mile from Reach village in East Cambridgeshire
- The site covers approximately 5 acres, and is screened by hedges

## Features of Community Ownership

- Not for profit
- Co-operative ownership
- Pays lease to landowner
- Pays interest to investors
- Other profits returned to the community

## Project impact highlights

- The cost will be around £600,000
- Expected income approx. £50,000 pa
- Costs around £10,000pa: admin, land lease and maintenance
- The remainder will go to share payments, repaying capital and to a community fund.
- The project will be owned by a Co-operative, with community benefit as one of the objectives.
- Local people will be able to invest between £500 and £20,000 and will receive annual interest payments on their investment
- A share offer is to be launched once technical details are finalised. Anticipated interest rate around 4%.

# Case Study 6

## Renewable energy - St Neots Community Hydro Scheme

[www.stneotshydro.co.uk](http://www.stneotshydro.co.uk)

### Financing

It is proposed that funding will be raised from three sources:

- A Community Share offer with shares of £250 or £500, open to individual investors, local business, local venture capital funding, parish and district councils and local landowners.
- Grants as possible
- Commercial loans from banks such as the Charity bank, or other similar institutions or through 'crowd funding'.



### Key features

- The type of plant proposed comprises two 3.25 m diameter Archimedes Screw turbines, connected to a gear box, which is in turn connected to an electric generator.
- It is anticipated that the plant will have a rated generating capacity of between 195 – 215 kW, capable of producing 660-750 MWh.

### Overview

- The proposed scheme is to install a hydro electric plant on the Great Ouse river in St Neots
- The scheme is at an early stage; a prefeasibility study carried out in conjunction with a team from Anglia Ruskin University concluded that the scheme is practical and financially viable.
- The proposers of the scheme are now in the process of seeking funding to commission a full feasibility study. This is expected to cost up to £50,000.

### Other community hydro schemes in the UK

- Stockport Hydro in Greater Manchester, up and running since October 2012  
[www.stockport-hydro.co.uk](http://www.stockport-hydro.co.uk)
- Torrs Hydro in Derbyshire, up and running since 2008.  
[www.torrshydro.org](http://www.torrshydro.org)
- Osney Lock Hydro, Oxford, work started with electricity generation anticipated to start by the end of 2014.  
[www.osneylockhydro.co.uk](http://www.osneylockhydro.co.uk)

# For more information on Community Energy Projects, see:



[\*\*https://www.gov.uk/community-energy\*\*](https://www.gov.uk/community-energy)

Government guidance for local groups who are interested in setting up a community energy project



[\*\*http://www.planlocal.org.uk/pages/videos#section4\*\*](http://www.planlocal.org.uk/pages/videos#section4)

Short films from the Centre for Sustainable Energy giving support and advice on setting up a community-scale energy project.



[\*\*http://www.planlocal.org.uk/pages/getting-people-involved\*\*](http://www.planlocal.org.uk/pages/getting-people-involved)

Guidance on community engagement from the Centre for Sustainable Energy



[\*\*http://communityenergyengland.org/\*\*](http://communityenergyengland.org/)

Organisation representing and supporting those committed to creating the conditions within which the community energy sector can rapidly scale and grow across the country.