Bath & West Community Energy
Generating local energy

Clean Local Energy with BWCE

Who is Bath & West Community Energy ?

BWCE is a successful community-owned business established in 2010 to develop a not-for-profit community energy model. Our renewable energy projects place ownership in the hands of local people and actively benefit local communities in Bath, North East Somerset, parts of Wiltshire and South Gloucestershire. In addition to energy generation BWCE is focused on lowering energy demand and using renewables more efficiently; last year the BWCE Home Energy service launched to support householders in addressing the challenge of retrofitting inefficient and draughty homes.

How does our Community Energy Model work?

1. We raise funds via people investing money in BWCE (£100 upwards), anyone can become a member, the majority are from local communities. Members receive a fair return and a democratic say in how we operate.

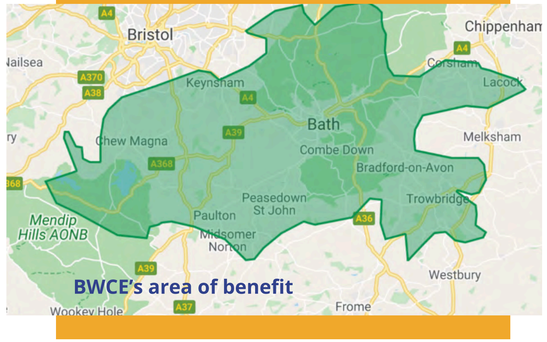
2. We build and operate renewable energy projects for and on behalf of communities across our local area. They include solar farms and rooftop solar systems on schools and community buildings.

3. We deliver tangible community and environmental benefit as a community society we reinvest surplus income into local community groups via our BWCE Fund. Grants are awarded to community projects that reduce carbon emissions, waste and alleviate fuel poverty within our local area.

There are over 400 community energy organisations in the UK. BWCE is one of the largest and most experienced.

Members of BWCE


Some of BWCE's professional team



BWCE's area of benefit


Wilmington solar farm (3 x the size of the proposed Homewood solar farm)


Rooftop solar installation at Three Ways School, Bath

5000 homes

Our renewable projects have a generating capacity of 14.3 MW - the annual equivalent demand of 5000 average homes

3,300 tonnes of CO2

As a result of our projects there is a 3,300 tonnes reduction in CO2 annually

£430k donated

Into the BWCE Fund since 2015, a total of 111 grants have been awarded to projects reducing carbon, waste and addressing fuel poverty

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The Benefits of Community Solar

Community solar generates clean energy, recycles money back into communities, improves biodiversity, creates new community amenities and enables local people to take greater control of energy, leading to greater local energy security.

Community response to the climate emergency

A significant increase in renewable energy generation is required to move our society away from a reliance on fossil fuels. Community participation and support is vital as community owned renewables projects in local communities make a significant contribution to our collective response to the climate emergency.

Energy owned and controlled by local people

BWCE offers a different way of doing business. We democratise energy and put local people in control. Local residents can invest and become members. This gives them a vote in the organisation, annual interest payments and opportunities for further involvement (e.g standing for election to the board).

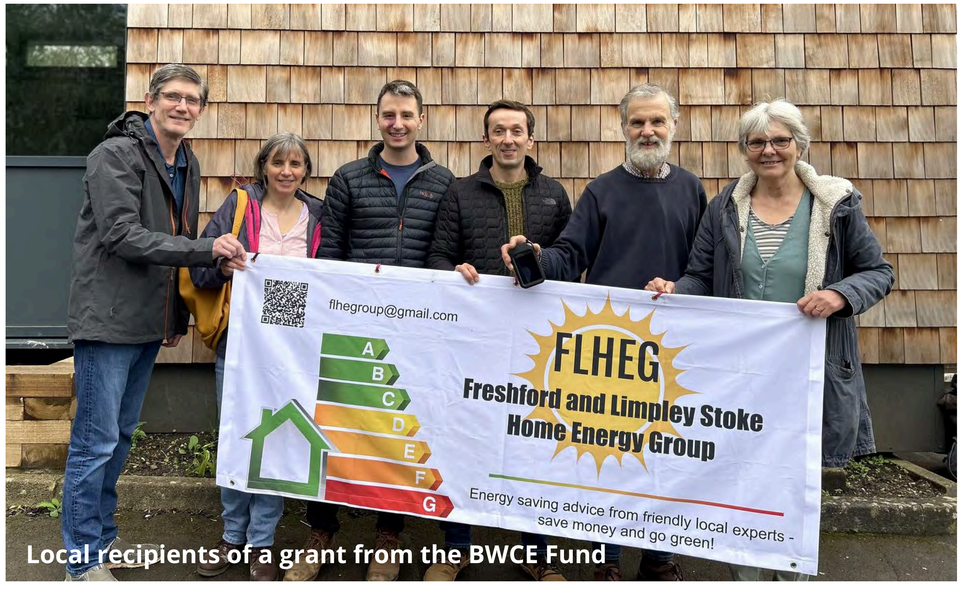
Retaining money in the local economy

As a successful local community owned business we try to ensure that as much of our revenue as possible is retained within the local economy, in the last year across BWCE's whole portfolio this equated to approximately £700,000.

Community Benefit funding

BWCE's surplus income is invested into an independent Community Fund. Residents are encouraged to suggest local projects this fund could support. Typically Community Energy projects deliver more than 10 times the community funds proportionately compared to similar commercial schemes).

Wilmington solar farm



Local recipients of a grant from the BWCE Fund

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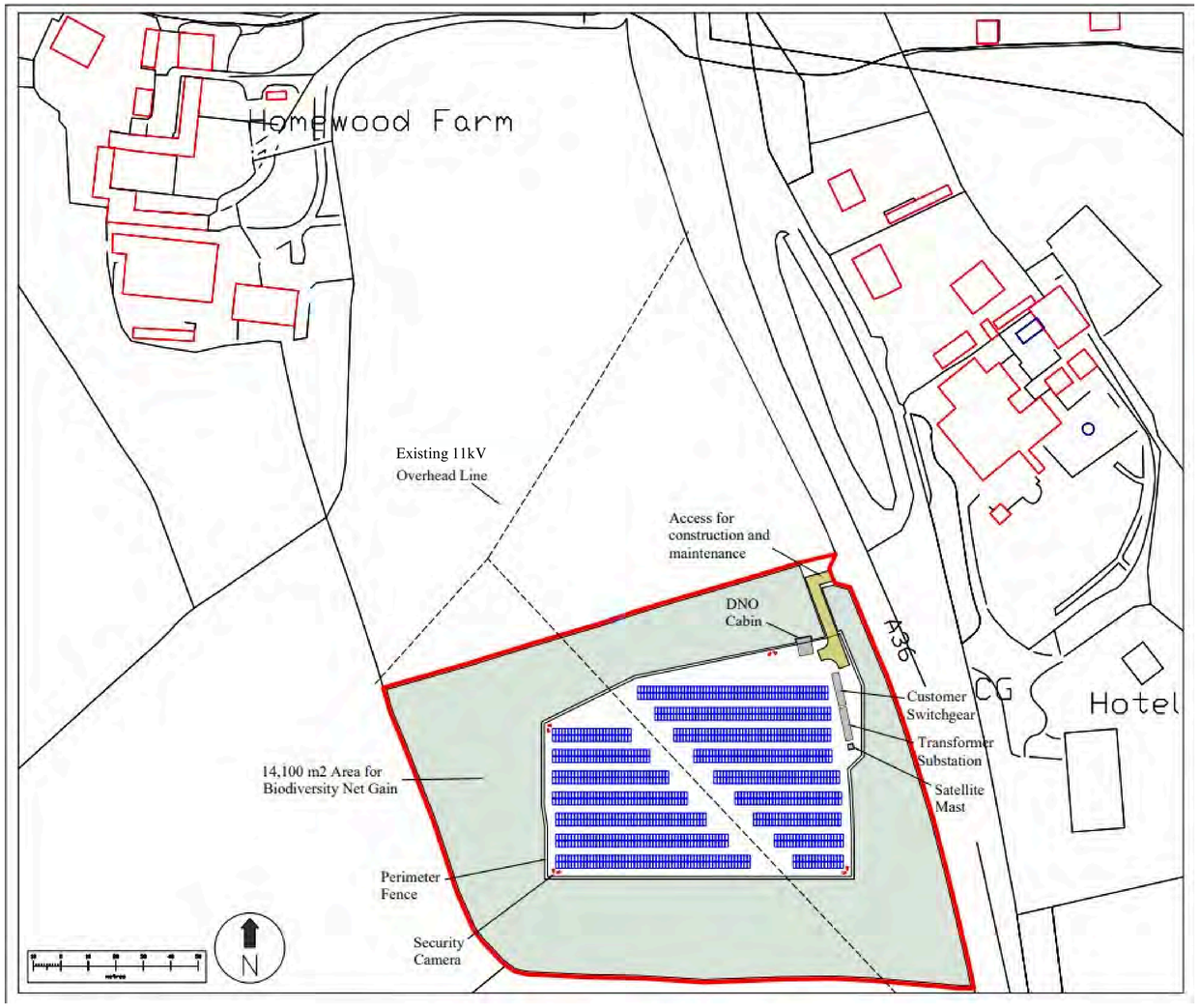
Homewood Farm Solar Project

Proposed layout



Key statistics:

- 800 kWp solar farm
- The solar farm site is approximately 6 acres
- Solar takes up approximately 2 acres
- The solar farm will take up 0.002% of land in the parish of Hinton Charterhouse
- Cutting emissions by 160 tonnes of CO2 per year – that's 113 people's average annual driving emissions
- The solar farm will generate an estimated 842,000 kWh of electricity every year
- Ring fenced annual funding benefit to local communities (area to be agreed through consultation)
- Ability to graze sheep on the land
- The site is Grade 4 Agriculture land *
- Estimated increase of Biodiversity Net Gain of 25%.

* Classification of Grade 4 Land: Land with severe limitations which significantly restrict the range of crops or level of yields. It is mainly suited to grass with occasional arable crops (for example cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties using the land. The grade also includes arable land that is very dry because of drought. *source: www.gov.uk*

South West NET ZERO HUB

Department for Energy Security & Net Zero

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and supported by the Southwest Net Zero Hub

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Environmental Benefits

An improvement in biodiversity

The development of a community solar project provides an excellent opportunity to improve conditions for wildlife on the site.

We have undertaken ecological surveys and are confident we can develop the site to deliver a significant net gain in biodiversity, far above the minimum required by planning policy, meaning an overall increase in natural habitat and ecological features.

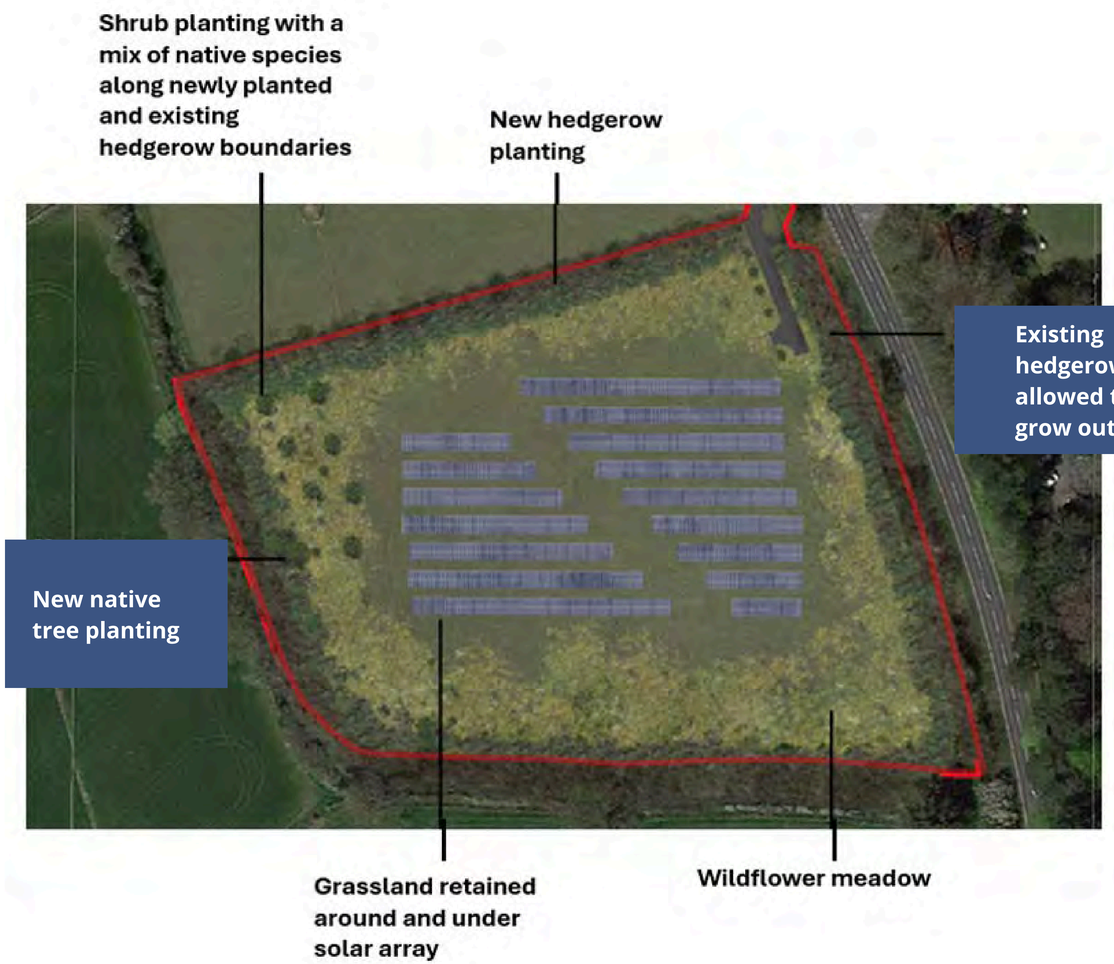
How is Biodiversity Net Gain measured?

Potential changes to biodiversity value on a site, both positive and negative – can be quantified through the use of the statutory biodiversity metric.

This gives an accurate representation of the current state of biodiversity on a site, but it is also used to predict the resulting condition of biodiversity once the development has been completed.

Looking at both the pre-development measurement and predicted post-development measurement, an ecologist then establishes the net gain for a particular site.

Initial site landscaping concept to achieve Biodiversity Net Gain



What is Biodiversity Net Gain?

Biodiversity Net Gain (BNG) is an approach to development, and/or land management, that aims to leave the natural environment in a measurably better state than it was beforehand.

Leveret spotted at Wilmington Solar Farm
photo courtesy of Ed Maxwell, Land Management

Deer spotted at Wilmington Solar Farm
photo courtesy of Ed Maxwell, Land Management

A solar development can provide an excellent opportunity to improve conditions for wildlife on site

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Introducing Local Supply

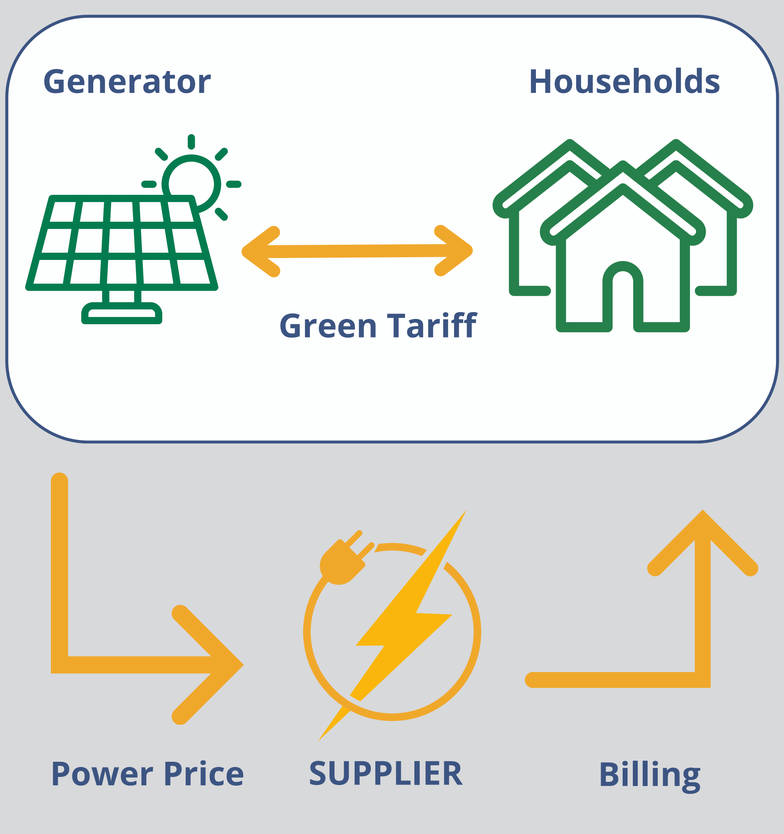
The aim of a local electricity supply model is to enable communities to obtain more value from renewable generation by using it 'locally'.

To do this BWCE aims to set up a local power club for the new Homewood Solar Farm so local households can buy its solar electricity directly.

BWCE will work with an energy supplier to offer a green tariff to the club. The supplier will provide all your electricity, with power being cheaper when you use electricity from the local solar farm. This rewards you for using local, renewable power.

Joining the club is entirely optional but will give households who choose to join access to the special local power tariff.

How the Club works



Every time you use power when the solar farm is generating, it will be green energy and will potentially save you money.

One supplier, One bill!

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Benefits of Local Supply

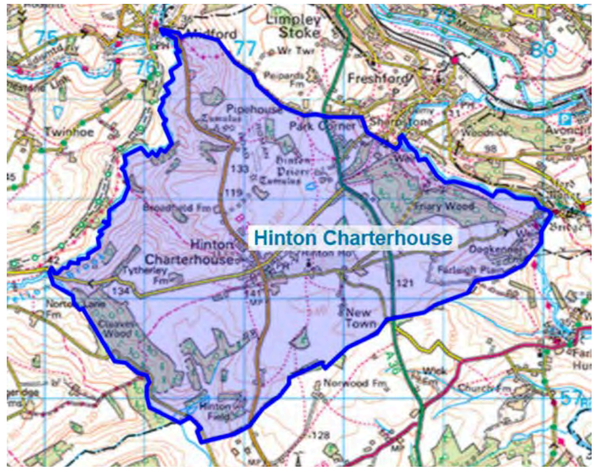
By sharing local generation we can:

- Work together to reduce energy bills
- Offer a fair price for locally generated green energy
- Build stronger, fairer, more energy resilient communities
- Retain income in the community from solar generation.

Case study: Energy Local

Who can benefit?

All the households in Hinton Charterhouse, Freshford and Limpley Stoke can become club members. However, the catchment area for the club can extend beyond the parish boundaries, covering all households on the primary substation network.



There are currently 29 renewable energy projects successfully supplying electricity to local households via the local supply model, facilitated by Energy Local (a Community Interest Company and designers of the local power market), with more due to commence.

More information can be found at:

energylocal.org.uk

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Setting up a Local Supply Club

01 Households and generators, in this case BWCE, form a local Club.

02 Club Members elect a Board of Directors to represent them. BWCE will also be a Director representing the generator.

03 The Board agree a 'Match Price' for solar electricity with BWCE, and tariffs for non solar energy from the supplier.

04 The Board communicate the agreed tariffs to the Club members.

05 The Board regularly meets to ensure effective running of the Club.

The Club will be supported throughout by BWCE and Energy Local CIC.

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Development Process

BWCE have engaged with the local community and stakeholders throughout the current technical feasibility stage. We will continue to do so throughout the entire development process. Homewood Farm Solar is a project owned by BWCE and run on behalf and for the benefit of the community.

Feasibility study to date:

- **A grid connection has been secured with Southern and Scottish Energy Network (SSEN)**
- **Detailed modelling and design work for the Homewood Farm Solar Project has been carried out**, which has enabled BWCE to provide the preliminary layout designs
- **A number of surveys have also been conducted so far, which have all been positive:**
  - Biodiversity Net Gain assessment
  - Transport and Access survey
  - Landscape and Visual Impact Assessment
  - Agricultural Land Classification survey.

TO-DO

Further surveys planned for 2025, including:

- Flood Risk Assessment
- Noise Impact Assessment
- Ecology studies.

Further consultation:

A consultation survey will be available to enable you to give your feedback and ideas about the scheme. Information about the project and upcoming events can be found at -

www.bwce.coop/homewoodfarmsolar

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2021

- **BWCE were commissioned to investigate potential Solar PV locations within the parishes of Freshford and Limpley Stoke.**
- **Homewood Farm site is in Hinton Charterhouse, and had previously been identified by the parish council as a potential site.**
- **Other sites identified were not progressed due to either lack of grid availability, inappropriate access or topography, or lack of landowner engagement.**

2022

- **BWCE conducted surveys of the local community through questionnaires, which confirmed overwhelming support for such an installation.**
- **BWCE liaised with parish councils and held discussions with local residents around developing a local solar energy project.**

2024

- **March: Community Energy Fund (CEF) Stage 1 grant funding was received to carry out technical feasibility studies for the site as part of the early development phase, including key surveys.**
- **All three parishes gave support for investigating feasibility and applying for a grant for a solar project and Hinton Charterhouse parish council voted unanimously in favour at the time.**
- **May-June: Public information session held at Freshford and Hinton Charterhouse village halls.**
- **November - Positive response to a Planning Pre-Application received from B&NES.**