



Cottenham Community Centre

Retrofitting a Community Building

Case Study

Background

Cottenham Community Centre is a busy community hub located centrally in the village. It is well used by a wide cross section of the community and by all age groups, the Centre receives over 500 plus visitors in a typical week.

Services include the Community Coffee Shop (open 6 days a week) and a spacious activities hall and dance studio used by a range of community groups. The space is also used for musical events, film screenings and Christmas markets, to name just a few of the events on a busy itinerary!



Embedding Sustainability

Running the Community Centre sustainably has been a core mission for the Trustees, and efforts are made to reduce emissions year-on-year from a 2022 baseline. Accounts of the Centre's carbon footprint (scope 1 and scope 2 emissions, plus information on waste) are provided annually at their AGM and published on the website. In 2023, Trustees moved to adopt their Energy Policy and appointed a Sustainability Champion.

Retrofit

The building is leased long term (50 years) from the Methodist Church at a peppercorn rent. Since taking full control of its management in July 2010, the Trustees have undertaken a series of improvements to the building to make it more energy efficient. The Community Centre benefitted from the Low Carbon Business Support Programme, offered by Cambridgeshire ACRE and the County Council and delivered by Deyton Bell, a local consultancy specialising in business decarbonisation. Tailored for village halls and community buildings, the programme involved an energy audit of the building and helped inform plans for its retrofit.

The first phase of work included re-roofing most of the building (all pitched/slanted roof aspects), where care was taken to add as much insulation as the roof structure could accommodate. Internal wall insulation was also added to suitable solid wall areas. Other changes made in this first phase of work included the automation of entry doors (preventing them from being left open and allowing heat to escape) and the replacement of the existing gas boiler with a more efficient condensing model.

Phase 2 tackled the building's uninsulated flat roof areas, replacing them with an insulated warm-roof structure. The former single-glazed skylights were also updated to double-glazed roof lights.

More recently, infrared heating panels were installed in the main hall and existing fluorescent lighting units were replaced with LED equivalents, halving the energy used to light the building.

Keep reading to find out more about the project



Zero Carbon Communities Project

In 2022-2023, the Community Centre completed a project to install a solar array and battery storage, to reduce their use of grid energy and further shrink the building's carbon footprint.

An impressive £30,575 of funding was raised in 2022, including £15,000 from the Zero Carbon Communities Grant, £7,000 each from the John Aphorp charity and the National Lottery and a further £1,575 from donations and other fundraising. Further contributions were received in 2023 from the Fen Edge Community Association, the Co-operative Local Community Fund and the Community Centre's own reserves. The total cost of the system was around £38,000.

The Community Centre participated in the County Council's Solar Together scheme, a group buying scheme that allowed both households and community buildings to access reduced cost solar PV. However, a system designed and installed by Cambridge Solar Ltd was selected as it best matched the electrical and physical constraints of the building.

As the Community Centre sits in the village's conservation area, the Trustees sought pre-planning advice from Greater Cambridge Shared Planning. The Duty Officer confirmed that, provided the proposal satisfied the conditions outlined on the planning portal, then the changes would be categorized as Class J permitted development and full planning permission wouldn't be required. With sensitivity to the character of the building and local area in mind, a black mounting system and bird guards were chosen to minimise the visual impact of the system.

The Community Centre received full support and written approval from the Cambridge Methodist Circuit Leadership Team for this project.

The 30-panel proposal was forecast to generate up to 13.05kW and offer an annual reduction in the building's emissions of 2,300 kg CO₂e. This calculation was made by the trustees using the methodology provided in the application guidance. The 9.2kWh of battery storage was a key component of the proposal, allowing energy captured during periods of lower building usage (generally during afternoons) to be stored to support periods of higher usage of energy, normally during evenings and in the early mornings. Actual savings should be evident around mid-2024, once the system has been in operation for a full year. However, available energy usage data for 2023 indicates that savings in-line with the above prediction should be achieved.

The Community Centre charity is actively promoting the environmental benefits of the solar system and the cost savings via community drop-in meetings and through a TV display in the Community Coffee Shop which provides a live graphic of the PV system operation and cumulative statistics on the energy savings to date. The panels are quite visible given the Community Centre's prominent location in the village, the main array being visible to all visitors as they enter the building from the south. The batteries are mounted internally and are visible from most aspects within the coffee shop.



£30,575
of funding
was raised in 2022



Next Steps

The Trustees are not yet done with their sustainability efforts. Further work is planned to upgrade and refurbish the studio space to form a second activities hall. The work is expected to add a further area of highly insulated warm roof, double-glazing and an updated heating system with enhanced controls to conserve energy. It is also intended to improve accessibility by adding a platform lift. Subject to funding, it is expected that this work will go ahead later in 2024.



Cambridge Sustainable Food

Food Waste and Climate-Friendly Diet Education

Case Study

Background

Cambridge Sustainable Food is a local non-profit organisation working to build a fairer, more sustainable food system. In 2019, CSF was granted £15,000 in the first round of the ZCC grant scheme. Through the project, they set up two community fridges which saved 5.97 tons of food from going to landfill during the funded project.



They had 80 attendees at online events, and their YouTube cookery demos and environmental tales read aloud received 1,100 views subsequently online. They hosted 6 stalls in local villages designed to educate their 250 visitors on what a climate diet is and how to incorporate it into daily life. Although their plans had to be adapted due to Covid, they managed to change their format and hosted a live cook-along over Zoom involving local chefs. They also developed Climate Diet Pledges, which helped participants to commit to making a change in their own lives. The charity reported, “the campaign has enabled us to develop a strong network in South Cambs and we hope this will enable further effective partnership working in future”. A participant of the community fridges project commented, “over the last few weeks I’ve stopped peeling carrots and I’ve started freezing odds and ends of vegetables to make stock”, showing the positive behaviour change fostered by the project. The group also developed an E-Recipe book to have something tangible that individuals could refer back to.

In 2022, the charity received further funding to build on their existing work with food hubs in Harston and Gamlingay. This project aimed to develop examples of how sustainable, climate-friendly foods and behaviour change can be embedded into community action, whilst reaching those that would normally be marginalized from this type of outreach i.e., those on low incomes. This second grant expanded the hubs’ capacity to source surplus food and redistribute it to those experiencing food insecurity. This project also developed climate-friendly recipe kits with information packs and ingredients for food hub users to experiment with new recipes and cooking methods, without the barrier of cost. Funds were additionally used to host village food-waste awareness festivals, cookery workshops and community meals.





Cambridge Carbon Footprint's Repair Café Network

Case Study

Transitioning to a Circular Economy

Background

Cambridge Carbon Footprint is a charity helping individuals and organisations to make meaningful reductions in carbon emissions. In 2023, the charity was awarded a Zero Carbon Communities grant of £15,000 to continue their work establishing a Cambridgeshire Repair Cafe Network. Repair cafes are sociable community events where people with broken items are paired with a skilled repairer. By giving access to free repairs, these events give new life to items that would otherwise have gone to landfill.



The grant has enabled CCF to support the set-up of new cafes in South Cambridgeshire, train volunteers in how to run cafes, and provide them with support and resources to thrive – including a new toolkit supported by local businesses, a ‘Fixometer’ tool to demonstrate avoided carbon emissions to residents, and a repairer recruitment campaign.

Key to the Network’s success has been CCF’s adoption of a ‘hub and spoke’ model to build capacity – where information and resources are provided to cafes from CCF’s centralized hub, making the most of their core group of volunteers and staff. Support provided for the repair cafes in the network includes:

- access to a network of experienced repairers who are willing to travel to and mentor new cafes
- an extensive communal toolkit
- publicity materials and an event listing site
- admin and booking systems
- advice on health and safety
- a discounted insurance policy that is fit for purpose

In addition to their climate-friendly credentials, repair cafes build cohesive, caring communities and help combat isolation. Both visitors and repairers enjoy the opportunity to socialise with new people, and many visitors are inspired to think more widely about the climate challenge - “I was so pleased that I was able to get my hairdryer fixed at the Repair Café,” one visitor commented. “It really made me think about the impact that getting just one thing repaired can have... The event had an amazing energy and it felt empowering coming together as a community to make a difference.”