



Report on Transition Bro Gwaun's Community Climate Fund May 2024

Introduction

The Community Climate Fund (CCF) is the mechanism by which Transition Bro Gwaun (TBG) is fulfilling our ambition of funding projects in Fishguard, Goodwick and across North Pembrokeshire, using income from the community wind turbine.

The core themes for grants are climate change mitigation and adaptation, enhancement of biodiversity and improvements to community resilience through promotion of community engagement and resource sharing.

Initial funding for all feasibility studies that were required to develop a wind turbine project and to take it through planning (a total of approx. £45k) was kindly donated by Welsh Government's Ynni'r Fro programme. An Endurance X-29 225kW turbine was commissioned in August 2015 at Trebover Farm, just south-east of Fishguard. (Trebover is part of Parc-y-Morfa Farms Ltd.)

In 2015, TBG raised its 50% share of capital funding for the project by means of loans from 28 local individuals and 4 community groups, contributing a total of £286,500. The other 50% was contributed by Parc-y-Morfa Farms Ltd.

Profit generated by sale of electricity from the turbine is split 50:50 between TBG and Parcy-Morfa Farms Ltd through the jointly owned trading arm, Abergwaun Community Turbine (ACT). By the end of 2022, all loans had been repaid, allowing the launch of TBG's Community Climate Fund.

This year we have awarded our third round of grants bringing the total amount granted to \pm 76,036.

The ingenuity and energy that organisations of all types bring to defining and executing projects is truly inspiring. While not all projects have been successful, the majority have sequestered significant carbon, have made our communities more resilient to changing climate and have markedly improved local biodiversity. One of the key purposes of the Community Climate Fund is that a relatively small grant can lead to a cascade of projects in the community through demonstration of what can be done. When this happens it's particularly inspiring.

TBG is committed to continuing to expand the fund, both in terms of the amount of money granted and the range of projects and organisations funded. We see this as core to what we are as an organisation.

We're aware that the distribution of funds is quite skewed towards community groups at present and we have plans to more actively encourage applicants from local businesses.

In the following pages we bring together the stories of projects undertaken so far, seeking to demonstrate their range and highlight their successes. It focusses on projects funded in the

first two years as those funded this year are just starting. All projects will be mentioned but several will be highlighted with case studies.

Full list of projects funded to date

2022

Organisation funded	Outline of project	Total funding
Active Travel West Wales	Promoting use of bicycles	
	through training	
Ffynnone Community	Courses in regenerative food	
Resilience	production, preservation, and	
	land management	
Fishguard Sports AFC	Installation of solar panels on	
	clubhouse	
Grŵp Garddio Brynberian	Organisation of a 'Saving	
Garden Group	Pollinators' day	£15,274
Nevern Valley Veg/Llysiau	A solar powered vegetable	
Cwm Nyfer	irrigation scheme	
Ysgol Bro Gwaun	Rewilding a small area of playing	
	field to encourage biodiversity	
Ysgol Glannau Gwaun	Erection of a polytunnel for their	
	sow, grow and eat project	

2023

Organisation funded	Outline of project	Total funding
Fishguard and Goodwick Rugby Club	To install solar panels on their clubhouse	
Fishguard Sports AFC	Rainwater harvesting system to reduce mains water use	
Heartwood Horticulture	Build composting units and provide courses on home composting	
Letterston Memorial Hall	Part-fund the installation of an air source heat pump	£39,845*
Sea Trust Wales	Part-fund installation of PV system on Ocean Lab	
Trees for Resilience	To develop a low impact, nature based, tree nursery propagating and selling trees suited to building climate resilience	
Wyld Soul	A catering project promoting the ethos of an energy efficient, sustainable, local food culture	

2024

Organisation funded	Outline of project	Total funding
Caerhys Organic Community	Part funding an electric cargo	
Agriculture	bike for transporting vegetables	
	for sale	
Fishguard and Goodwick	Installation of battery bank for	
Rugby Club	solar system	
Fishguard Sports AFC	Insulation of club house to	£20,917*
	reduce energy use	
Nevern Valley Veg/Llysiau	Rainwater harvesting and wildlife	
Cwm Nyfer	ponds	
Parc Cerrig Growers	Rainwater harvesting	
Theatr Gwaun	Insulation of loft space	

*The difference in the amount available within the CCF programme between 2023 and 2024 is due to some unreliability of the turbine and timings of tax liabilities.

Funding processes, project selection and monitoring

Since its inception, TBG has encouraged applications to the Community Climate Fund from community organisations, small local businesses, schools, faith groups, environmental groups, and groups of individuals with a great idea. To be eligible, organisations should be based in North Pembrokeshire, anywhere north of Newgale - Efailwen.

TBG has advertised its funding rounds through the CCF page of TBG's website (<u>Community</u> <u>Climate Fund – Transition Bro Gwaun</u>), through social media and in the local paper. We aim to make the whole process as easy as possible. Following a simple expression of interest submission, applicants are allocated a TBG link person who will support them with completing their application and, if they are successful, will keep in regular contact, supporting with as much of the reporting as possible. Our project leads have commented on how productive these relationships have been and on the relative ease of CCF processes compared with grants with a more extended and time-consuming application process.

TBG holds a Community Climate Fund Fair each autumn, where interested groups are encouraged to attend to find more information on the fund and understand the application process. The Fairs provide an opportunity for previous award recipients to share their experience with each other, potential applicants, and the wider community. The application process starts with a short narrative expression of interest. Projects selected to go forward are invited to submit an application form (supported as needed by their link person), which details the amount of grant requested, the forecast positive impacts on the climate and nature and the ways the project will be publicised to other groups and individuals. The reuse and sharing of materials is favoured where applicable, as is the development of a local skill base. The engagement aspects of the CCF project are absolutely key: the idea is that the initial funding acts to spur further action on greenhouse gas emission reductions and biodiversity improvements across our community.

The initial motive for a number of organisations bidding for funds has been to reduce their costs or increase production and sales. This is fully understood by TBG. It's notable how, throughout the project, organisations become more aware of the effects of their activities on climate change and the environment and become "ambassadors" for greenhouse gas emission reduction and biodiversity improvement.

To assist in the selection of projects for funding, a panel is convened in February each year with representatives of local organisations, independent of potential beneficiaries, to review the applications and select those that can be recommended for funding. Applications are ranked in order of preference, based on the quality of the project brief and on the degree to which the project addresses the aims of the fund. The panel's decisions are reviewed by the Community Climate Fund Group and Trustees of TBG, who make the final decisions on the size of each grant to be given, within the money available. All applicants are then contacted to communicate the funding decisions and arrange next steps for those which TBG can support.

When a project is funded, a TBG support person works with the project team to complete a Community Climate Fund Project Agreement prior to release of funds. The aim is to agree the key project outcomes, to seek to ensure best value for the project, both to the project team and in support of the strategic objectives of the fund. The TBG support person is the prime contact between the project team and TBG and is there to offer support throughout the project. There is an expectation of a short mid-project and final project report, detailing the effects of the investment.

TBG is continually seeking to improve every aspect of the management of the fund. The aim is to encourage as many high-quality applications as possible from the widest possible range of organisations and to ensure money generated by the turbine achieves the maximum community benefit.

Project Case Studies

Ysgol Glannau Gwaun Primary School, Fishguard

2022 A grant for a polytunnel

Key themes: Enhancement of biodiversity $\sqrt{}$

Promotion of community resilience $\sqrt{}$

A polytunnel was funded for growing fruit, vegetables, and flowers in support of the school's Sow Grow and Eat project. The aim was that the polytunnel would transform an area of the school grounds into a growing area, where pupils could learn to grow plants. From this focus many broader outcomes have flowed.

The polytunnel has been used to grow a good variety of vegetables, including tomatoes, runner beans, potatoes, courgettes, and cucumbers. In 2023 sunflowers were grown around the perimeter of the area close to the polytunnel and sold to parents to encourage pollinators. The school plans to widen the range of plants in 2024.

Gardening has become a mainstream part of the school curriculum, as well as an enrichment activity. It has greatly broadened pupils' knowledge of plant biology, the importance of plants in human diets and biodiversity.





Pupils helping to build the polytunnel

Pupils have a much better understanding of the importance of local food production in reducing greenhouse gas emissions associated with long-distance transport. They're also developing a strong social awareness and are establishing what they call a "Sharing Shed", where plants, toiletries, and water-proof coats, for example, are to be put to be shared with the local community. In 2023, pupils also sold produce to parents after school, which develops an understanding of the value of money and improves the sense of community with the school at its centre.

Pupils understand the importance of pollinating insects, both in their own right and to fertilise plants and are seeking to plant a range of species that encourage pollinators. They have also made contacts with Fishguard and Goodwick Greening Group and, with the help of parents, are trying to establish pollinator corridors, to allow insects more easily to travel around our area in search of suitable habitat. They know that certain combinations of plants allow nutrients to be recycled back into the soil and are developing an understanding that pesticides can be avoided by encouraging natural pest predators.





Growing and selling plants summer 2023

Attempts have been made to dig a pond to encourage amphibians and water-borne invertebrates. Remarkably, this has involved pupils moving three tonnes of clay, outside school hours. Unfortunately, the clay bottom is leaking and the school has now reluctantly purchased a plastic liner which is about to be installed.

A baseline biodiversity survey was carried out before the project started and the aim is to repeat it to measure improvements. A film is planned to communicate and celebrate their achievements.

We visited the school on a cold day in April and met a group of very enthusiastic pupils from years 4, 5 and 6, along with two inspirational members of staff, Sharon Osborne, Deputy Head, and Bethan Homer, the teaching assistant who made the original application to TBG and who has been involved since the start of the project. The things that most struck us

were the depth of understanding that the pupils have about plants and the wider connections to biodiversity, climate change and living sustainably, their sense of enjoyment in learning and the degree of co-operation between the children and adults. This is very much a venture of the whole school community.





Enthusiastic pupils preparing for the new growing season April 2024

Perhaps the best way to sum up what is being learnt was an answer given by a little boy to the question 'You are doing a great job looking after the plants and trees, I can see how much you all care about it, why is it so important to you?' the boy replied 'Because if we didn't have trees, we wouldn't have oxygen, so we wouldn't be able to breathe and if we didn't have plants, bees wouldn't be able to pollinate the plants and we wouldn't have food'.



Fishguard Sports AFC

2022 Installation of solar panels

Key theme: Climate change mitigation and adaptation $\sqrt{}$

The club, which was founded in 1947, won the Football Association Club of year in 2018 and in 2020 were awarded the Pembrokeshire Club of the year for their voluntary work delivering food boxes and vouchers locally during the pandemic. After a long period renting premises, they bought their own ground at Tregroes in 1991. In 2014 they secured a modular building which was converted into changing rooms, showers, toilets, and a meeting room. The original plans were that this would be a temporary building; the intention being to replace it at a later date. The club also built a garage and storeroom which was due to remain when the main building was replaced. They're a really important Fishguard sports club with a very inclusive ethos, supporting over 200 players from age 7 upwards comprising 11 teams of boys, girls, women, and men and an over 16's mixed-disability team.

When Sian James, an ex-County Councillor, joined the club in 2021, she did so because she recognised how important it was to the community. Sian recognised that club costs were too high, particularly the electricity bill for heating their poorly insulated clubhouse and powering floodlights for evening matches, as well as the cost for water usage. She developed a plan to make the club's finances more sustainable, involving addressing the major elements of the club's costs. Thus, when she approached TBG, her initial motivation was to save the club money.

In late 2022, a sixteen-panel, 5.775 kWp, solar PV system was installed on the garage funded by the CCF and Sian was successful in getting funding from Milford Haven Port Authority for matching battery storage. As electricity production from the solar panels and income generated from sales to the grid exceeds the costs of bought-in electricity, the club effectively "hasn't had an electricity bill since March 2023", as Sian tells us proudly. In the first year the panels generated 5508 kWh of electricity, which, using a figure based on the amount of carbon dioxide that would otherwise have been emitted from the electricity grid in generating, transmitting, and distributing that electricity, gives a first-year carbon dioxide emissions saving of over 1.2 tonnes (1239 kg).

Now, unsurprisingly, Sian is an advocate for renewable energy and enthusiastically showed us the app she has on her phone for monitoring the electricity output from the panels, which were still happily generating electricity on a cloudy April day.



The solar PV array at the Football Club

2023 Rainwater harvesting system to reduce mains water use

Key theme: Promotion of community resilience $\sqrt{}$

Irrigation of the 2 pitches using mains water was costing the football club £650 over the summer months so an obvious next step, after the solar panels, was to install a rainwater harvesting system. The CCF funded a 10,000-litre tank to harvest rainwater from the main clubhouse building, plus internal plumbing and a pump. This rainwater is then used to flush toilets, for washing machines to wash club kit and for irrigating the field. Previously, players had to take kit home to wash, so there are benefits to household budgets and reduced electricity use by washing kits communally. Mains water is still used, of course, for drinking water and for showers.

The system has not been installed for a whole year yet and Sian recognises that the full benefit will only be realised when they have been through a summer. She already has plans for a second 10,000 litre tank as she has recognised that they could have captured a lot more water over the winter and is concerned to be able to properly irrigate the pitches through a long summer.



Sian James and the pump supplying rainwater to toilets and washing machines

Rainwater harvesting is arguably as important a process as is renewable energy generation to ensure community resilience. We're all familiar with the cycle of excess rainwater in the winter and rivers and reservoirs seriously depleted in our increasingly hot and dry summers. Clean water is a precious resource and excess water extraction from rivers by water companies imperils biodiversity. Additionally, purification of water consumes significant energy. A 2015 study by Oxford University, published by the Global Water Forum (Energy for water: A UK perspective | Global Water Forum) indicated that, for one UK water company, cleaning 1,000 litres of water consumes more than 0.5kWh. As the average water usage per person in the UK is 53,000 litres per year (<u>Water industry in the UK - Statistics & Facts</u>] <u>Statista</u>) this suggests we need to generate over 150,000 kWh of electricity per year just to clean the water for our local population. It is becoming increasingly important that rainwater is harvested and used for the tasks where the cleanest water is not required and it is really gratifying to see the Football Club demonstrating so publicly what can be done.



Sian and Cali Lamb, TBG's Community Project Officer, with the 10,000-litre rainwater tank

2024 Insulation for the clubhouse and other projects

This year the CCF is supporting insulation to reduce heat loss from the clubhouse.

The initial grant to install solar panels has set the club on a journey to ensure it is sustainable both financially and ecologically. Principles of decarbonisation are to minimise energy use, electrify where possible, and to generate as much electricity locally as feasible. Under Sian's guidance, the club continues to demonstrate these principles in its activities.

With solar panels generating electricity and the battery enabling more efficient use of the power, the club has started electrifying its equipment: it has invested in a battery powered ride-on mower, electric strimmer, small mower, as well as LED floodlights. The latest round of improvements includes electric water heating to replace gas. When the CCF funded insulation is fitted in the clubhouse, further electricity will be saved and the building will be generally warmer and more comfortable. To ensure the optimum use of heat, the club has also moved the condenser drier inside the clubhouse ensuring the heat generated helps warm the building instead of being wasted in the garage.

Letterston Memorial Hall

2023 Part funding of an air-air heat pump

Key theme: Climate change mitigation and adaptation $\sqrt{}$

Letterston Memorial Hall's website (Letterston Memorial Hall for Letterston and Pembrokeshire) describes the hall as "probably the finest village hall in Pembrokeshire". It's ideally situated in the middle of the village with substantial parking, and flat, wheelchair access into the building. There are a range of rooms, including a substantial main hall to seat 300, a medical suite and meeting rooms. It has its own kitchen and bar. When we visited, the secretary, Helena (Babs) Johnson, and regular volunteer, Ben Morris, were just completing clearing up from their weekly Tuesday Luncheon Club, where lunch is served to community residents for a small fee.

As this is a substantial building, with part-time use, it's a challenge to be able to heat parts of the building quickly while not wasting energy heating the whole building.

Under the management of Babs and Rhyswyn Thomas, along with the rest of the trustees, the hall is on a "journey" for greater energy efficiency. Built in the late 1940s, the hall insulation had been upgraded relatively recently and a small solar array had been installed in 2015, but without battery storage, meaning that electrical energy was being exported to the grid. While this was earning some income for the hall, it might have been more effectively used in the building, as the unit cost of bought-in energy was much higher than export income gained.

When Babs and Rhyswyn, with the support of Ben, approached TBG for grant funding in late 2022, the hall was heated by bottled gas using an aging gas boiler. Typical gas consumption in the winter was 12 large bottles of propane per month, each containing 47kg of gas. In the months January-March 2023, for example, 36 bottles of gas were purchased, at a total cost of approximately £3750. Burning this gas would release 5076 kg of carbon dioxide.

They had sought professional advice from Rounded Development Enterprises (RDE) Ltd (Rounded Developments Enterprises – Sustainability Rhetoric into Reality (roundeddevelopments.org.uk), a Cardiff-based, not for profit company, whose aim is to "champion the development of sustainable building in Wales". In May 2022, Peter Draper, the Founder of RDE, provided a detailed survey of options for powering the building, including space and water heating, and concluded that the hall had the opportunity to become carbon neutral.

Peter endorsed an air-to-air heat pump as the best solution, as it offered the flexibility required by the hall. Although recognising that a ground source heat pump would offer greater overall efficiency, Peter estimated that a well-installed air-to-air system would provide at least a 2x efficiency improvement over the old gas boiler with quick space heating and room by room control.

Hence Babs and Rhyswyn made an application to the CCF for part funding of a suitable system, along with a low energy lighting system, in the 2023 funding round. In this case, the majority of the £75K investment came from the Welsh Government Community Facilities Programme, with the CCF contributing about 10%. As a matter of principle, we're very happy to part-fund good projects as this can often make a project viable and it enables the benefits of the CCF fund to be shared as widely as possible.

In October 2023 the hall's new air-to-air heating system was installed meaning that all heating was now provided by electricity. When we visited, Ben proudly showed us the operation of the heating system from an app on his phone. When he turned it on, there was an immediate flow of warm air, and it represents a very efficient option, meeting the requirements of this important community building.



From left to right, Kate Hawkins, the TBG link person for Letterston Hall, Mike Davies, TBG Trustee and volunteer, and Babs by the external fans which extract heat from air outside the hall.





Heating air inlets in the main hall and in the kitchen. The main hall also has low energy lighting strips in the ceiling, also funded as part of the grant.

The Future at Letterston Hall

Ben and Babs have further exciting plans to reduce running costs and decarbonise the hall's activities. They're planning ground-mounted solar arrays with associated battery storage as well as efficient water heaters, as recommended by Peter Draper's 2022 report. They're actively seeking more grant funding to support these activities.

Early indications are that the air-air pump is reducing the carbon dioxide emissions of the hall substantially as well as saving the hall considerable amounts of money. Fairly conservatively, taking into account reducing gas consumption to zero with an increase in electricity consumption, it's likely that carbon dioxide emissions have been cut by about 10,000 kg per year with annual savings to the hall of more than £3,000.

Like many complex projects, there are activities that would still benefit from further attention. Ben reported that some users of the hall regret the change to the heat pump and still lean hopefully against radiators that are no longer part of the heating system. We would encourage the hall management team to confirm the carbon dioxide reductions and cost savings on an annualised basis and make users and the wider community aware of these. This may help to convince users of the value of the changes and act as encouragement to similar halls elsewhere.

Another area that would benefit from more work is wider public engagement. There has been a visit from Llanddarog Village Hall (Carmarthen), but otherwise, this is an area still to be actioned. We discussed ideas including posts for the PAVS Village Hall website and hosting visits from North Pembrokeshire village hall committees.

Nevern Valley Veg/Llysiau Cwm Nyfer

2022 A solar powered vegetable irrigation scheme

Key themes: Enhancement of biodiversity $\sqrt{}$

Promotion of community resilience $\sqrt{}$

Nevern Valley Veg is a small market garden just off the A487 between Nevern and Felindre Farchog. It's run by two inspirational people, Naomi Hope and Richard Sylvester, who are growing vegetables organically to supply to individuals and businesses within a 10-mile radius of the site. Much of their produce is salad leaves, sold through a wholefood shop in Newport, and they also supply a small number of homes with vegetable boxes.

Talking to Naomi and Richard, one is struck by their passion for the project. Not only are they keen to supply healthy food locally, minimising the carbon dioxide emissions associated with transportation, but they want to enhance biodiversity on the site, and capture carbon in the soil. They're using a "no-dig" gardening system, whereby the ground is not dug but weed suppression is achieved by covering the soil when not being cultivated, blocking access to sunlight. According to the RHS website (<u>No-dig gardening / RHS Gardening</u>), digging damages soil structure by compaction and disturbance, meaning irrigation is less effective and results in the release of carbon trapped in the soil. No-dig gardening preserves and improves the soil structure and overall soil health and fertility.

When they started Nevern Valley Veg in 2021, the site was of low biodiversity value as it had been grazed heavily for many years. They started by carrying out a baseline biodiversity survey in order to quantify improvements as their project progresses. To encourage pollinating insects, they have created 50 square meters of pollinator areas, as well as planting a 120-meter-long pollinator hedge (with funding from Glastir). They have also planted a 1,000 square meter wildflower meadow, which was seeded by volunteers through the Trefdraeth am Natur / Newport for Nature project.

In 2022 they were awarded a grant from the CCF to install a small solar panel array and a pump to extract a small volume of water (<5 m³ per week) from the Afon Nyfer which flows at the bottom of the site. The idea was very simple: to generate electricity to power a pump submerged in the river. As so frequently, the actual implementation was more complex than foreseen but Richard and Naomi were helped by Michael Shakib, a local engineer and member of community garden Field of Beans, at Blaenffos, to design and put in place the system. Michael learnt a great deal from the process, which he is now using to help others to install similar renewable energy irrigation systems.

The solar array has to be part way up the hill in the sunshine and the filters and pressure vessel are at the bottom of the hill in undergrowth close to the river. This meant that a 240V inverter had to be installed and a cable run down to the pump. Richard and Naomi have also enhanced the system by adding batteries.

Extraction of such a small volume of water does not materially affect the flow in the river but has transformed Naomi and Richard's ability to grow vegetables, especially as springs have tended to be becoming drier recently, posing the risk that plants are faced with drought conditions just when their need for water is greatest. The pump lifts the water to the top of their sloping growing site. It then trickles back into the growing beds irrigating their plants.



Naomi and Richard with their solar array



Installation of the pump in the river Summer 2022

Before the irrigation project Naomi and Richard had been carrying water to site in the back of their car and then applying it with a watering can. Now they report that the system is working excellently and that it has transformed their ability to grow vegetables. Through efficient irrigation and hard work, they produced and sold about 1400 kg of vegetables in the year following installation of the system.

Estimation of the carbon dioxide emissions associated with food transport is challenging and there is little agreement between sources. While our food contributes 20% of global greenhouse gas emissions, it's likely that the biggest impacts are caused by high meat and dairy diets (How much do food miles matter and should you buy local produce? | New Scientist). However, reducing food miles will have an impact on emissions, especially when, as in the case of Nevern Valley Veg, food is grown in a nature friendly way, and is not packaged in plastic.

Naomi and Richard have done much to communicate their ideas to others. They held a solar irrigation workshop in partnership with Grŵp Resilience, led a farm tour as part of Newport Food Fair, and had a visit from Cwm Arian Renewable Energy as part of a solar training session they were holding. They're aware that solar irrigation is being practised at an increasing number of farms and they're committed to continuing to share their knowledge.

2024 Rainwater harvesting and wildlife ponds

This year we were pleased to provide a grant for rainwater harvesting from the roof of the large polytunnel at the site and creation of storage ponds. Naomi and Richard have consulted an ecologist who has encouraged them to allow the pond to become naturally populated with plants and animals. We look forward to seeing how this next stage of the development of their fantastic project progresses.



The polytunnel and early- stage development of the pond – April 2024



Conclusions

The projects described in this report are mainly at a fairly early stage of development and, while the installations in many cases may be complete, their full benefits will only be realised in the years to come. At this stage several core themes can be discerned by looking across the projects and the activities the CCF fund has enabled so far.

Our projects prioritise reducing reliance on "imported" resources, such as energy, water and food. Instead, we support the use of locally sourced community resources like wind and solar energy, rainwater harvesting and locally grown produce. By following these principles, we can strengthen our community's ability to withstand the challenges posed by the rising cost of living and climate change.

Money from the Abergwaun Community Turbine is stimulating other community energy initiatives which are to be warmly welcomed. Community renewable energy projects are proposed, designed, and owned by local people, and can make a significant difference to our community. The <u>CPRE report 'Discover why we love community energy'</u> identifies many benefits including empowering and uniting communities, increasing enthusiasm for volunteering, and making money to fund community projects. At a time when the demand for electricity is increasing and grid capacity is constrained, it's doubly important that electricity is generated and used locally.

Its notable how a relatively small grant is leading to a series of initiatives, with further funding being contributed from a wide range of sources. In some cases, there was a larger plan from the beginning and in others new ideas have emerged as confidence grows.

In many cases groups and individuals are working collaboratively, learning new skills, and discovering skills and knowledge outside their immediate circle. Often expertise and hard work is given voluntarily and new friends are made. A broad skill base and human connection are absolutely crucial aspects of a healthy society.

We, in TBG, look forward to continuing to work within our community for a long time to come. We hope that the CCF shines a light into what can be achieved when people work together. Our work expands- in the future we hope to have even more money to fund projects and we want to help the community generate 100% of its energy from locally-owned renewables by 2035. A decade of challenge and opportunity awaits and we hope you'll share our excitement for this positive vision.

Acknowledgements

We wish to thank all those in who have applied for grants from the CCF, whether successful or not. Your ideas and hard work turn a project from plan to reality.

We also wish to thank all those within TBG who have managed the Community Climate Fund, members of the annual CCF selection panel, and those who have contributed to this report.

Lastly, a word of thanks to an object, to those whose vision brought it to a hill above Fishguard, and to local people who believed in and lent money to develop the first community owned wind turbine in Wales. For the sake of our community, may it continue to generate electricity until we are able to replace it with a more advanced turbine that offers enhanced power and reliability.