

Towards Zero Carbon Cumbria

# CAfs

Cumbria Action for Sustainability



# Celebrating 20 years on the way to a zero carbon Cumbria

Welcome to Zero Carbon Cumbria

Powering community energy

Growing a greener economy

2019 Cumbrian councils declare climate emergencies

2018 UN says 12 years to act

2018 School strikes & public protests

2015 UN Paris Agreement

2015 Global CO<sub>2</sub> levels 400 parts per million

2015 Cumbria floods

Championing home renewables

Cutting waste

2012 CAfs vision becomes 'Towards a Zero Carbon Cumbria'

Making homes cosier

Driving cleaner transport

2005 Cumbria floods

2008 UK Climate Change Act

2009 Cumbria floods

Seeding local food

1998 CAfs is born as Eden Local Agenda 21

1998 Global CO<sub>2</sub> levels 367 parts per million

Support our 20<sup>th</sup> anniversary appeal!  
See back for details

1992 UN Rio Earth Summit

## CAfS turns 20 at crunch time for climate change

*We look back over our first 20 years at a unique moment in history. Climate change has finally come front and centre - in the media, in politics and in the public eye.*

Over the past year, the world has witnessed an unprecedented upsurge in protests and public awareness, as the climate science gets ever clearer about the urgent need to act. Protests by Extinction Rebellion (XR) and youth strikes have spread across the globe. Local councils and governments are declaring climate emergencies, committing to cut carbon emissions.

Until recently, climate change has been seen as a distant threat – one that would be felt many years in the future and affect far-flung parts of the world. But we are now seeing the impacts here in Cumbria in our own lifetime. Extreme weather events like Storm Desmond are forty times more likely in a warmer world. Floods, droughts and wildfires are becoming ever more frequent around the world, and communities are being displaced by rising sea levels – including in the West. It's just as the climate models predicted. The climate science is being proven correct, as we watch mankind's greatest challenge unfold.

It's happening because the world is 1°C warmer than before we started burning fossil fuels. Global temperatures will rise to 1.5°C, as emissions are still increasing, but the good news is that we can halt it there – if we take unprecedented, urgent action now. The UN's climate experts, the IPCC, spelled out in frightening detail the impacts on all life on the planet if we don't. In their report in October 2018, they told us we have 12 years to do it before we reach natural tipping points that will make it impossible for us to control emissions and limit temperature rises. [See [www.ipcc.ch/sr15](http://www.ipcc.ch/sr15)]

The pace and scale of government action to cut carbon emissions have been harrowingly slow. Most of the world's nations signed up to the UN Paris Agreement, which aims to keep the global temperature rise to 'well below' 2 degrees, but the pledges made would only limit warming to a catastrophic 3 degrees. Worse still, many countries are not even on track to meet those commitments.

And so, citizens from across the world have been making their voices heard. The climate movement is stronger than ever before and CAfS is stronger than we have ever been, in terms of our size, the skills of our staff and trustees, our networks, experience and ambition. We are making dramatic shifts in attitudes and ambition in the county, working with individuals, organisations, businesses and the county's leaders.

In the coming pages, you'll see examples of how we've influenced Cumbria's development. You'll also read about some of our many highlights in the areas of emission reduction that we've prioritised in our business plans down through the years. We've focused on the sources of emissions on which we can realistically have an impact, also taking into consideration the actions that others are taking in the county, so as to support and not duplicate effort. Our priorities have been guided in recent years by the seminal Zero Carbon Britain report by the Centre for Alternative Technology, which shows how the UK can cut emissions to net zero using technology already available to us.

We are making dramatic shifts in attitudes and ambition in the county by delivering innovative projects that demonstrate that positive change is achievable. Increasing numbers of individuals, communities and organisations, including businesses, are turning to us to support them in cutting carbon emissions. Responding to this demand and driving the transition to a zero carbon Cumbria are significant challenges as we look ahead to the next decade, but we are also hugely optimistic that we will build on this success, secure new partnerships and new funding and that this could be the period of our history when we achieve our vision of a zero carbon Cumbria. Like all parts of the world, we simply must. There is no planet B.

**David Beuzeval**  
Chair of CAfS Board of Trustees  
July 2019

CAfS  
Staff

Hazel (CEO)

Gemma

Caroline

Phil

Tina

Rhona

Emma

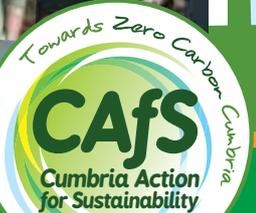
Andrew

Jaki

Roe

Nigel

Kushti



# Cumbria feels the effects of the climate crisis – and acts



Over the past few decades, Cumbria has been experiencing the extremes of weather that climate science has long predicted in a warmer world. We've had extremes of hot and cold weather, longer dry spells and periods of heavy rainfall leading to devastating flooding. However, public awareness about the link between this extreme weather and climate change has risen sharply in 2018-19, bringing an upsurge in action to tackle the causes.

**2005** Cumbria experiences 'once in 100 years' flooding.

**2009** Cumbria suffers extreme flooding again, with a severity of 'once in 1000 years'.

**2013-16** Our Sustain Eden project helps 11 voluntary organisations and six communities to prepare for extreme weather.

**2015** Storm Desmond hits Cumbria with the most severe and extreme flood event in a century. The record rainfall and devastating flooding galvanise more conversations about climate change.



*Householders learn about flood-proofing at 33a Chapel Street, Appleby*

**2016** CAfS and partners Cumbria CVS and ACTION with Communities in Cumbria launch the three-year Rebuilding Together programme to help Cumbrians to prepare for flooding, funded by the National Lottery Community Fund. CAfS guides residents in adapting their homes and making them more energy efficient and supports communities to reduce CO2 emissions.

**2017** CAfS hosts a sell-out guest lecture by one of the authors of the Royal Horticultural Society's report on the impact of climate change on gardens in the UK.

**2018** CAfS publishes unique research into the drivers behind waste in the aftermath of flooding, as part of the Rebuilding Together programme.

**2018-19** Extinction Rebellion groups form in Cumbria, leading public protests.

**2019** Councils in Cumbria begin declaring climate emergencies, starting with South Lakeland District Council and Carlisle City Council. CAfS helps SLDC to deliver its climate change action plan, and supports the Carlisle leader to write one of the strongest climate emergency motions in the country.

**2019** CAfS speaks at Cumbria's first-ever youth climate summit, as youth strikes gather pace. Young people set up a UK Student Climate Network group for Cumbria.

## The global backdrop of climate change



As the past two decades have slipped by, world governments have struggled to take meaningful action on climate change, while emissions and global temperatures continue to rise. The public, however, has begun to act.

1992

The UN Earth Summit in Rio de Janeiro brings nations together to tackle sustainability and development issues, including climate change.

2002

A decade later, emissions continue to rise.

2008

The UK Climate Change Act sets a target to reduce greenhouse gas emissions by 80% compared to 1990 levels, by 2050.

2009

UN climate summit in Copenhagen fails to produce a binding agreement for nations to reduce carbon emissions.

2015

Global CO<sub>2</sub> levels in the atmosphere exceed 400 parts per million for the first time since records began, compared to a 'safe' limit of 350.

Most countries support an agreement at the UN climate summit in Paris to limit global temperature increases to 'well below' 2°C above pre-industrial levels, although the non-binding pledges would only actually limit it to 3°C.

2017

President Trump announces the United States will withdraw from the Paris Agreement. Nearly 20 US states form an alliance to stick to the deal.

2018

UN climate experts, the IPCC, publish a report showing the impacts of 1.5°C of warming compared to the devastation caused at 2°C or higher. It also highlights that we have 12 years left to act if we're to have a reasonable chance of avoiding irreversible change.

The UN climate change conference (COP24) is held in Katowice, Poland. Nations agree on rules to implement the 2015 Paris Agreement.

Swedish teenager Greta Thunberg strikes from school in protest about the climate and ecological breakdown, inspiring global youth strikes.

Extinction Rebellion (XR) forms, and begins protests calling for governments to declare a climate emergency, tell the truth and commit to achieving net zero by 2025.

2019

A report by the UK's Climate Change Committee advises the Government that the UK could get to net zero greenhouse gas emissions by 2050. The timeframes are criticised for failing to reflect the urgency of climate science.

Public awareness continues to grow as the David Attenborough documentary Climate Change – The Facts airs on BBC 1 at prime time.

A UN assessment of the world's biodiversity says one million species are threatened with extinction due to climate change and other factors.



# CAfS is born, survives and thrives



The past two decades have seen peaks and troughs in funding for climate change projects and in public interest. Twenty years on, however, we find ourselves in our best ever position as an organisation. If funding for carbon reduction begins to catch up with public demand, we have the structures and skills in place to respond to the rising demand for our expertise and support.

1992

The Eden Local Agenda 21 group is set up in Penrith after the 1992 UN Earth Summit calls for local action to deliver global environmental change.

1998

Eden LA21 incorporates as a fully independent charity and not-for-profit company. CAfS is born!

2003

Eden LA21 raises enough funds to employ its first part-time staff member, kickstarting practical projects to support communities while tackling the causes of climate change.

2008

Eden LA21 changes its name to Cumbria Action for Sustainability (CAfS), reflecting our county-wide reach.

2012

'Towards a Zero Carbon Cumbria' is adopted as our vision.

2013

CAfS appoints its first chief executive officer.

2014

The team grows steadily, moving to Eden Rural Foyer after outgrowing smaller offices.

2015

We stay true to our climate change mission while many similar charities close or change their purpose due to reduced public interest and climate change funding.

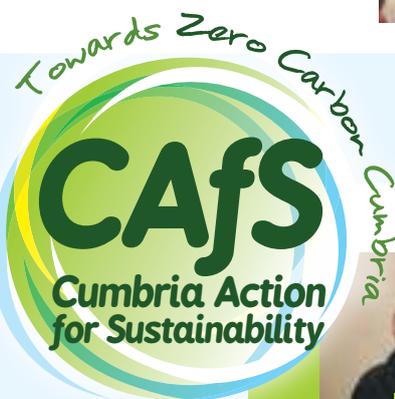
2016

CAfS wins the Winifred Tumim Memorial Prize for best practice in charity governance.

2019

Despite austerity and cuts in funding, CAfS bucks the trend, sets clear priorities for areas of emission reduction and expands to 12 part-time employees.

CAfS' board of trustees is boosted by internationally recognised low-carbon specialists and a low-carbon architect, following a targeted recruitment campaign with over 40 expressions of interest.



CAfS Trustees

David (Chair)

Mike (Patron)

Mandy

Tracey

Adrian

David

Seonaid

Tim

Karen

## Influencing Cumbria's development



CAfS' vision of a zero carbon Cumbria can only happen if people and organisations across the county work together, embedding emission reduction into every aspect of life here. CAfS has strived to lead and inspire change by working with a wide range of partners to shape the county's economic, social and infrastructure development.

2005

Eden LA21 wins a Defra-led innovation award and launches the DEVICE programme (Developing an Environmental Infrastructure for the Cumbria Economy).

2013-16

102 business energy audits are carried out through our Sustain Eden project.

2014

We recruit an environmental services manager to carry out transformational policy work at Impact Housing and establish a group of high-level managers to reduce the organisation's environmental impact.



Leaders' Summit at Low Carbon Lake District 10<sup>th</sup> anniversary

2016

CAfS hosts a major meeting of representatives from Cumbrian sustainability groups to plan ways to share skills, information and develop transformational projects at scale, kickstarting ongoing networking.

2018

CAfS feeds into the Local Energy Plan developed by Cumbria Local Enterprise Partnership.

Peter Emery, chief executive of Electricity North West, meets with CAfS to discuss the region's transition to low-carbon energy.

2019

Carlisle Partnership invites CAfS to speak at its climate change meeting to support its carbon reduction ambitions.

We help to scrutinise sustainability and inclusivity at Electricity North West and the Cumbria Local Enterprise Partnership (CLEP), with CAfS team members on three advisory panels.

CAfS coordinates a major event to celebrate 10 years of the Low Carbon Lake District initiative, on behalf of the Lake District National Park Partnership.



We organise and speak at Electricity North West's major stakeholder engagement event and launch of its decarbonisation strategy.

CAfS organises and chairs Cumbria's first-ever leaders' summit on climate change, resulting in agreement between 27 CEOs that action on climate change must be ambitious, rapid and meaningful. We spearhead discussions to develop a major partnership programme with the aim of making Cumbria the UK's first carbon-neutral county.

# Making buildings greener

A large proportion of the UK's carbon emissions come from constructing, heating and powering buildings. That's why CAfS has focused on buildings throughout our history, increasing the knowledge and practical skills of individuals and professionals involved in new builds and retrofits of existing properties.



2005

Eden LA21 launches the Cumbria Green Build Festival – the first in the country. This annual programme of open homes, workshops, talks, courses and other events has inspired thousands to green up their homes, businesses, organisations, communities and lifestyles.

2006

Eden LA21 joins forces with the UK's Building Research Establishment (BRE) to set up a Cumbria Energy Auditor Group, kickstarting our long history of offering advice on energy and sustainability for community buildings.

2007

Eden LA21 partners with Second Nature UK Ltd to help community volunteers to install sheep's wool insulation in 20 village halls across Cumbria.

2008

We run our first training event for building professionals.

2014-19

South Lakeland District Council funds CAfS to support energy audits of community buildings.



Green Build Festival



2017

We begin offering Home Energy Planner assessments – comprehensive home audits for householders planning major retrofits, set up by the Carbon Coop.

Cumbria's first battery storage conference is organised by CAfS in Kendal.

CAfS delivers *Retrofitting Buildings for Energy Efficiency*, a training course for building professionals, including at Level 4 and CPD certified.

We take part in trials of a new technology for testing airtightness, working with the Ebico Trust and Build Test Solutions.

2018

CAfS completes a comprehensive energy assessment of South Lakeland District Council's property and estate, and an appraisal of renewable energy options. It leads to substantial capital investment in energy efficiency and renewable energy.

CAfS supports its 50th community building with an energy audit and practical steps to improve sustainability.

We launch regular video diaries charting the sustainable refurbishment of a previously flooded house in Appleby, 33a Chapel Street, with the filming funded by Historic England.

The 13th annual Cumbria Green Build Festival expands into a month-long programme of more than thirty events, also spanning sustainable living.

# Creating cosy homes for all and saving energy at home

Around 16 per cent of the average person's carbon footprint comes from heating and powering their home. It's a source of emissions that individuals can do a lot to reduce with the right advice and support, while making their homes warmer and healthier. For Cumbrian households who are not in a position to retrofit their homes for energy efficiency, CAfS has become a trusted provider of support to make other energy-saving changes – from draughtproofing schemes to energy advice – helping hundreds of vulnerable households struggling with high fuel bills.

2013

CAfS begins two years of energy advice drop-ins and energy champion training throughout South Lakeland, appointing our first domestic energy efficiency manager.

2013-16

CAfS helps 858 households to save money on energy bills through our Sustain Eden project. The charity Opt4 is set up and helps hundreds of households to save on their energy bills by switching to cheaper tariffs, supplemented by CAfS' new switching service in partnership with Energylinx.

2014

We begin two winters of tariff advice and frontline worker training for the Big Energy Saving Network, funded by the Department of Energy & Climate Change.

190 households in Eden benefit from energy-saving installations in their homes through our Cold to Cosy Homes project.

2015

CAfS wins the National Energy Action (NEA) Warm Homes Campaign Award.

A new Energy Saving at Home service delivers a wide range of energy measures and advice for vulnerable residents.

We launch our thermal imaging service and training for professionals in this technology.



Free draughtproofing advice and equipment for homes



2016

CAfS wins the NEA Community Action Award and uses the prize money to train volunteers to support people living in fuel poverty.

Energy Saving At Home takes a fresh approach, training energy champions to provide advice and offering free installation of draughtproofing equipment.

MP Rory Stewart joins CAfS for a home energy advice visit in Eden.

2018

CAfS offers home energy advice visits, onward referrals and fitting of easy energy-saving measures, through the nationwide Local Energy Advice Partnership (LEAP) funded by energy companies.

2019

MP Tim Farron takes part in a LEAP visit to a Kendal household.

CAfS is awarded £148,000 to run a new two-year Cold to Cosy Homes scheme to offer energy advice and improve energy performance of 600 homes.

## Supporting community renewable energy



Communities generating their own power using renewables like wind, solar and hydro is a crucial part of the UK's shift away from burning fossil fuels – the main cause of climate change. CAfS has supported new community energy schemes across the county, from Alston to Killington.



2012

CAfS takes ten rural businesses to visit German areas benefiting from the LEADER scheme for rural development, to learn about energy and renewables as part of the Anglo-German Rural Energy Skills Exchange (AGRESE).

CAfS helps to develop Cumbrian businesses and the local supply of wood fuel through the Wood Fuel School.

2013-16

CAfS kickstarts seven community renewable energy schemes through our Sustain Eden project, along with two 'chop your own' woodland schemes.

2014-19

South Lakeland District Council funds CAfS to support energy audits of community buildings and develop community energy schemes.



*Community-owned solar panels at the Lake District National Park Authority*

2015

As a direct result of our Sustain Eden project, Alston Moor Community Energy is launched to champion community-owned renewable energy.

2015-16

CAfS seed funds Community Energy Cumbria (CEC), to develop renewable energy installations owned by the community and launches community share offers raising the £298,000 to install Cumbria's first community-owned hydro scheme at Killington Reservoir and solar PV on the headquarters of the Lake District National Park Authority, making it Britain's first national park to buy 100% renewables from a community-owned project.

2015

CAfS manages the £250,000 share offer for Burnside Community Energy (BCE) to install solar PV at James Cropper PLC. We also support a series of renewable energy feasibility projects including for Alston Moor Community Energy, Brampton and Beyond Community Energy, the Melbreak Communities and at Kirkby Thore.

2017

MP Tim Farron officially opens the CEC hydro scheme at Killington Reservoir amidst widespread media coverage.

2018

CAfS supports BCE to raise another £329,000 in community shares to boost the solar PV array at James Cropper PLC.

CAfS leads a feasibility study into small-scale anaerobic digesters for businesses in Keswick.

2019

CAfS supports AMCE to install solar PV on the roof of the Alston schools.

## Supporting communities to become more sustainable



CAfS has a long history of helping communities to reduce their carbon emissions and become stronger and more resilient. Our input has ranged from supporting one-off projects through to three-year programmes working with one area in a 'whole-place' approach.

2006

Five areas from across Cumbria take part in Eden LA21's Sustainable Community programme, with projects ranging from local tool swapping events to solar thermal installations and whole-street garden parties.

2013-19

Building on our relationship with South Lakeland District Council, we run events and provide information and practical support to encourage moves towards lower carbon living and working, including uptake of renewables and energy efficiency measures as well as supporting lower carbon behaviour changes.

2013

CAfS wins funding from the Big Lottery Communities Living Sustainably fund and launches the three-year, £1 million Sustain Eden programme with ten partners, developing a model to help areas become more resilient to climate extremes and to reduce CO2 emissions.

2013-16

The energy efficiency of 15 community buildings gets a boost through our Sustain Eden project.

More than 600 schoolchildren learn about trees through the Tree Whisperer project, as part of Sustain Eden.

2016-19

The Alston Moor Greenprint begins, our three-year project to pave the way for a sustainable future for the area, funded by Esmée Fairbairn Foundation. This 'whole place' approach spans community planning, community-owned renewable energy, housing, waste reduction and food growing.

35 communities receive support from CAfS for projects to increase sustainability and reduce CO2 emissions, as part of the Rebuilding Together programme, with another 14 projects investigated. They range from energy audits of community buildings to potential hydro schemes. CAfS supports communities to access over £67,000 of additional funding.

2017

CAfS is awarded a place on the advisory board for the development of the Fellfoot Forward Landscape Heritage scheme and leads discussions on a 'future fair' approach.

CAfS and partners deliver a series of film screenings on environmental themes at the Brewery Arts centre in Kendal and University of Cumbria in Carlisle.

CAfS develops the Alston Ark community arts festival on the theme of sustainability, zero carbon and community values, as part of the Alston Moor Greenprint Project.

2018

CAfS hosts the first Zero Carbon Convergence in Cumbria, held on Alston Moor as part of the Greenprint Project.

CAfS attracts a sell-out crowd to hear how Ashton Hayes set out to become England's first carbon neutral village, with a talk in Staveley by Garry Charnock.

CAfS runs a workshop at Our Common Home, a major Churches Together event on sustainability.

2019

Our partnership with South Lakeland District Council continues with support for a 'whole place' approach in Ambleside to transition to zero carbon.

The Alston Moor Greenprint is embedded into the area's Community Plan, influencing the sustainability of community buildings, community-led housing, community energy and community food growing.

# Championing waste reduction, local food & green transport



Wasting less is a great starting point for households and organisations to cut their carbon footprint. CAfS has supported people to cut out waste in lots of different aspects of life, from food and goods, to water and energy.



2005

**Eden LA21 pioneers collections of business waste for recycling in Eden. Pubs in Penrith begin commercial recycling of glass bottles for the first time.**

**Eden LA21 runs a water-saving project in 15 primary schools across Eden.**

2007

**Eden LA21 sells its 1000th home composting bin and funds Eden's first garden waste collection service from village locations.**

2013-16

**CAfS supports events and produces guides to help reduce waste, as part of our Sustain Eden project.**

2017-18

**20 primary schools take part in our Rubbish Rebels waste education programme, created for Cumbria County Council. We follow up with a package of six lesson plans, videos and activities for all primary schools in the county.**

2018

**CAfS launches a repair cafe for Alston Moor as part of our Greenprint project.**

2018-19

**CAfS supports the Plastic Clever Cumbria pledge scheme and Plastic Clever Penrith initiative.**

## Sowing the seed for local food

Food and drink make up the single biggest chunk of the average person's carbon footprint. Food accounts for a quarter of our household carbon emissions – from producing it to transporting it to us. Cumbria's local sustainability groups have a long history of supporting their communities to reduce their food carbon footprint, and CAfS has supported along the way, while also running some food projects of our own.

2013-16

**Nearly 400 people learn how to grow their own food through our Sustain Eden project, including Visiting Edible Gardens events by Penrith & Eden District Freegle. We also support the Fair Meals Direct food project by Sustainable Carlisle.**

2019

**A feasibility study into community food growing and enterprise is launched on Alston Moor as part of our Greenprint project.**

**Author and CAfS patron Mike Berners-Lee sets us the task of developing a pioneering project to reduce emissions from food across Cumbria.**

## Electric vehicles & greener transport

2015

**Electric bikes are introduced onto Alston Moor as part of the Sustain Eden project, along with a new community bus.**

2018

**CAfS runs the first electric vehicle workshops for businesses and the general public in Cumbria.**

2019

**CAfS joins a consortium to bid for the rollout of community-owned electric vehicle charge points across the north of England.**





## You can help!

We must all take action if we're going to prevent damaging climate change – as individuals, communities and organisations.

### Cut your carbon footprint



There's a lot you can do to reduce your own carbon emissions, and every action counts.

The **Sustainable Living Guide** on our website has lots of tips and advice on everything from reducing waste to greener travel. There's also a whole section on ways to use less energy at home – from simple draughtproofing right through to a full retrofit.



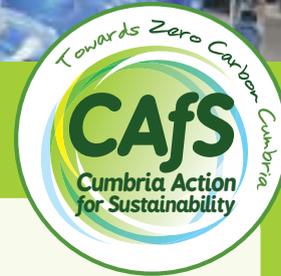
### Support CAfs

There are lots of ways to help us to drive down carbon emissions in our county and protect the future for everyone.

**Support our 20th anniversary appeal:** We receive no direct funding from government, and grants to tackle climate change are incredibly scarce. We need your help now like never before to help us realise our vision of a zero carbon Cumbria. Please donate and help us to meet the rising demand for our expertise and services. Visit [www.cafs.org.uk/donate](http://www.cafs.org.uk/donate) to find out more and make a donation.

**Spread the word:** Follow us on social media and share our posts. Sign up for our newsletter via our website.

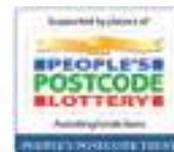
Visit [cafs.org.uk/get-involved](http://cafs.org.uk/get-involved) for more ways to help.



## Thank you to all the funders, partners and people who've supported CAfs through the years.



We wouldn't be here without you! Thank you to our main funders in the 2018-19 financial year:



Cumbria Action for Sustainability, Eden Rural Foyer, Penrith, Cumbria, CA11 8ET

t: (01768) 210276 e: [office@cafs.org.uk](mailto:office@cafs.org.uk) [www.cafs.org.uk](http://www.cafs.org.uk)

