

NORTH SOMERSET COUNCIL

# Climate Emergency Action Plan



# Contents

Foreword	3
Introduction	5
A changing world	8
Why are we calling this an emergency?	9
The co-benefits of climate action	11
Governance	14
Community	15
Finance	17
Emissions for the North Somerset area	19
Emissions for North Somerset Council	23
Action Plan	25
Glossary	52

Imagine if by 2030,  
Our air was far less dirty.  
What would this look like to you?  
Would the sea be a deeper blue?  
Would the roads emit a hum,  
Of electric vehicles as they run?

Imagine if by 2030,  
Our air was far less dirty.  
And our children knew we had it –  
A working method to protect our planet.  
No more plastic in the Severn,  
Wouldn't this be just like Heaven?

by Georgia Duffee  
“Picture This” entry



## Foreword

### Steve Bridger

#### Leader of the council



Climate change is here and will continue to affect us all, but we also all have the power to do something about it.

Already in 2022, council services and the lives of our residents have been impacted by record-breaking storms and record high temperatures.

Three years ago, North Somerset Council declared a climate emergency and we followed this up with a Climate Emergency Strategy that commits us to addressing the causes and consequences of climate change. Our aim is to be a carbon neutral council and a carbon neutral area by 2030.

In 2020, the council recognised we are also facing a nature emergency and need to take urgent action to halt the loss of biodiversity. Since then, the council has published a Green Infrastructure Strategy to support nature recovery across the region.

Of course, so much has changed since we adopted our Climate Emergency Strategy. The COVID-19 pandemic accelerated a pre-existing direction of travel with regard remote and hybrid working and our use of technology. Over two years into the pandemic we are still seeing unfold some significant disruptive structural challenges that will provoke changes in the way we live, do business, and operate as a council.

There is also a growing body of evidence that suggests people have re-evaluated the importance of green space and the accessibility of active travel on their doorstep for their own health and wellbeing and to reduce the dominance of vehicles to achieve more liveable neighbourhoods and communities.

As a council we need to take a leadership role locally. We need to respond, mitigate, and adapt to the impacts of inevitable climate change – not just by reducing our emissions but by being better prepared and more resilient to more frequent flooding and extreme weather events. Nationally, the rising cost of living is also the price of climate inaction.

The purpose of this action plan is to build on our 2019 strategy, highlight some key areas that we can focus on in North Somerset over the next few years, and seek to improve the way we demonstrate progress being made. It signals that all of us have a part to play in creating thriving communities and making North Somerset a healthier and happier place to live and work.



# North Somerset Council Climate Emergency Action Plan

## Bridget Petty

### Executive Member for Climate Emergency and Engagement



Our world is changing around us, with increasing temperatures, extreme weather and risks to property, health, wildlife habitats, and food production.

I'm committed to acting on climate change because while I am scared, I also have the belief there is still time for us to act. The last seven years have been the seven warmest years on record globally – and yet our children can expect these to be some of the coolest years of their lives.

We published our Climate Emergency Strategy and first action plan in late-2019 and since then have been working hard to reduce our own emissions and support residents and businesses to do the same. This Action Plan is a live document and will continue to evolve over the coming few years.

I am proud of the work we have done since 2019, the hard work of the council officers, the leadership team, partner organisations and the community living in North Somerset. There are areas that will require national legislation change, but we will continue to work with the powers we have as a council.

In order to step up our response to the climate emergency, an enormous amount of change is needed. This is how we will show leadership; I'm not saying it won't be without challenges. The way we travel and heat our buildings must become more sustainable and these require physical changes as well as changes to our mindsets.

To support the change of mindset at North Somerset Council, over 250 of our officers, all senior managers, and a quarter of our councillors have taken part in Carbon Literacy training and we were delighted to recently receive our Silver Carbon Literacy Accreditation – only the third Local Authority in the country to achieve it.

Carbon Literacy has helped us all to gain a better understanding of how and why the climate is changing and how we will be impacted by it. As a result of this training, we now focus much more on the additional benefits which come along with acting on climate change.

This means that actions which reduce greenhouse gas emissions and also will reduce inequalities, improve our health and support our local economy – such as promoting walking, wheeling and cycling – will be treated as a high priority.

Climate change is a global problem, but the UK is well-placed to set an example to the world. And we want North Somerset to be a role model for the country. We want to make sure that no-one is left behind or disadvantaged in this transition – this is why we always talk about a just transition. From the older generations to the very youngest – who will be most affected by climate change – we want to invite you to help shape the future with us.





## Introduction

The North Somerset Climate Emergency Action Plan is a live document which outlines our eight key principles for how we will address the causes and consequences of climate change over the coming years. Progress is reported on a six-monthly basis and the action plan will be updated at least annually.

In November 2019, the council published its first action plan, establishing seven key principles to focus on for reducing greenhouse gas emissions and improving our resilience in a changing climate.

The biggest material change to this plan is the inclusion of a “Low carbon business and skills” key principle. Businesses and organisations in North Somerset produced 249 kt CO<sub>2</sub>e in 2020 (22% of North Somerset’s total emissions) with almost half of those emissions coming from burning gas. It is a significant challenge to reduce these emissions.

There is also a significant business opportunity around net zero. This target requires more people with new and different skills and jobs. Getting jobs, skills and demand to align is a substantial task.

Our climate emergency declaration in February 2019 stated that we would aim

to be a carbon neutral council and area by 2030. We have since joined the UK100 Countryside Climate Network and pledged to do everything within our power and influence to rapidly reduce our greenhouse gas emissions and work with our residents and businesses to bring our wider community’s emissions in line with net zero as soon as possible. With limited options for carbon dioxide removals before 2030, our main focus is on reducing emissions rather than removals or offsetting, although opportunities will be taken in these areas if they become available.

Our first action plan in 2019 set the groundwork and foundations for making changes. Many things have changed or happened since it was published, including national and international policy priorities, the COVID-19 pandemic, the cost-of-living crisis and our understanding of our ability to act on climate change.

Many of the actions taken up until now have been designed to enable change – putting strategies and policies in place which will influence our way of life locally and improve our understanding of the issues we face and the actions available to us to reduce emissions.

What have we been doing to enable change and reduce emissions?

- Auditing our buildings to prepare for energy efficiency improvements
- Working with neighbouring authorities to produce region-wide low-carbon transport approaches
- Reviewing planning policies as part of the Local Plan update
- Updating internal policies for areas like procurement and human resources to make our services align with a low carbon future
- Training our staff and councillors in Carbon Literacy to ensure it is a high priority across the council
- Running a solar panel purchasing scheme for residents
- Utilising Green Homes Grants to insulate low-income homes
- Replacing streetlights with LEDs
- Funding energy efficiency projects for local care homes



## Key Principles

1. Become a net zero carbon council
2. Decarbonise transport
3. Decarbonise the built environment
4. Low carbon business and skills
5. Renewable energy generation
6. Resources and waste
7. Adaptation and resilience
8. Replenish our carbon stores

This document has been designed to give a little more information about how the council's response to the climate emergency is managed. It also gives details about why we're making changes and when things will happen. It is still a working document, to be updated and strengthened as necessary.

This updated action plan outlines the actions we know we need to take in the coming years, but it is not exhaustive. Short term actions can be achieved within one or two years (2022-2024); medium term actions are designed to take several years to reach fulfilment (2025-2028); and longer-term actions will take longer to come to fruition (2028 onwards).





# North Somerset Council Climate Emergency Action Plan 2021: a year in numbers

## Carbon Literacy

Delivered training to 150 officers and councillors as well as 17 local businesses and 18 community champions

**300** pledges made

**450** tonnes CO<sub>2</sub>e savings estimated

## Decarbonisation plans

Delivered for 30 public buildings including:

**15** schools

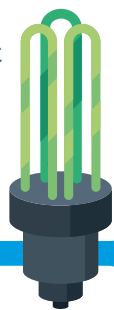
**5** leisure centres



## Business support

**17** local small businesses supported to reduce carbon emissions through our Business Carbon Support pilot programme

**15** businesses have received Green Business Grants from WECA totalling £113,561



## Zero carbon school

Planning permission granted to zero carbon school development at Winterstoke Hundred Academy

## Funding for care homes

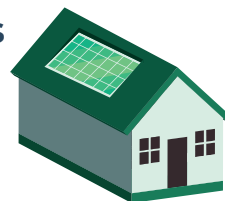
**£400,000** in grants awarded to care homes to reduce emissions

## Low carbon homes

**64** zero carbon homes

**52** PassivHaus homes

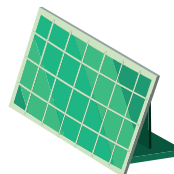
**361** low carbon homes



## Solar panel installations

**292** installations across North Somerset through WECA Solar Together scheme

**1,730** installations through Green Homes Grant, Local Authority Delivery (LAD2)



## LED streetlights

Completion of streetlight upgrades: **18,000** streetlamps, saving 3,800 kWh and over 1,000 tonnes CO<sub>2</sub>e each year



## Cycle paths

**57** miles of dedicated cycle and shared use paths

## EV charging

**39** chargers installed by North Somerset Council to date

**90** public chargers now available

Staff salary sacrifice scheme set up for EV purchasing



## Cycle training

**2,337** children received Bikeability training



## Ecosia search engine

Over **500** trees planted through internet searches by council staff

## Housing retrofit

**48** park homes and **50** Alliance Homes properties received home energy improvements

## Long grass

**400,000** hectares left for pollinators

## Trees planted

**30,000** trees planted



## A changing world

Since we launched our Climate Emergency Strategy in 2019, many things have changed, not just in North Somerset, but nationally and globally too. A summary of how these events affect the climate emergency response is outlined below:



## Why are we calling this an emergency?

Climate change is currently the biggest threat to our civilisation and there is clear evidence to show that it is happening right now, all around the world.

The latest Intergovernmental Panel on Climate Change (IPCC) Assessment Report<sup>1</sup>, states that human activity has already caused 1.1°C of heating. In earlier reports they warned that if the planet's temperature goes up by more than an average of 1.5°C, it will cause devastating problems for the planet.

Across the UK, we expect to see:

- warmer and wetter winters
- hotter and drier summers
- more frequent and intense weather extremes.

Winter storms are expected to be more frequent with stronger winds and more rainfall. While the temperatures may be milder, winters will tend to be wetter, with more potential for flooding.

Heatwaves are a risk to health and, in some cases, life. During the heatwaves of 2003

and 2006, it was estimated that there were more than 2,000 excess deaths<sup>2</sup> and this figure is expected to more than double by 2050<sup>3</sup>. Increases in temperature are also associated with increased rates of suicide and violent crime.

Climate change will make hot spells more frequent and severe. By 2070, the chance of exceeding 30°C for two days or more greatly increases. Over the southern UK, it becomes sixteen times more frequent than it is today.



Aftermath of a grass fire in the Winscombe area, August 2022

1 Sixth Assessment Report – IPCC  
2 Heatwave mortality monitoring – Summer 2018 ([publishing.service.gov.uk](https://publishing.service.gov.uk))  
3 UK Climate Change – Risk Assessment 2017 ([publishing.service.gov.uk](https://publishing.service.gov.uk))





We are particularly vulnerable to flooding in North Somerset, with three of our four towns on the coast and a number of villages affected by coastal or inland flooding.

The impacts of flooding on our communities can be wide ranging – from damage to belongings and increased insurance to physical and mental health. The average cost of flooding to a home is

£30,000 and the mental health impacts can be severe and long lasting<sup>4</sup>.

Frequent and intense rainfall will cause an increase in flooding, which we will need to prepare for. Considering how we manage our land, where we build our homes and how best to defend against flooding will be critical in the years to come.

Climate change will impact farming, too. And this is an impact not just for farmers

but for the whole population. Global average crop yields have already declined over recent decades and could decline by 30% in the next 30 years<sup>5</sup>. This could lead to reduced availability and sharp increases in food prices.

As with energy costs, rising costs of food will impact the most vulnerable members of our communities hardest.

<sup>4</sup> Wellbeing in the aftermath of floods – ScienceDirect

<sup>5</sup> <https://www.chathamhouse.org/2021/09/climate-change-risk-assessment-2021/>



## The co-benefits of climate action

A co-benefit is an additional or extra benefit we receive when addressing an issue or concern.

One example might be an initiative to increase cycling in a particular community, with a primary objective of reducing carbon emissions from transport locally. However, this initiative will also deliver the co-benefit of improved physical and mental health for residents through increased physical activity and improved air quality. Over time, this will also result in fewer NHS interventions, saving money.

Another example would be planting trees within town centres, which can lock in carbon dioxide, enhance biodiversity, improve people's well-being, reduce air pollution, reduce temperatures, and reduce the risk of flooding.

With often limited budgets, it is helpful to be able to prioritise actions which tackle multiple issues at once. For example climate change, health inequalities and job opportunities, which are all strategic priorities for North Somerset Council.

Throughout this action plan, co-benefits will be identified using the following icons. A brief explanation, including a few examples is given here:



Tradespeople fitting insulation into a home to make it more energy efficient. Image by Freepik

The charity Age UK estimates that cold homes cost the NHS in England £1.36 billion a year due to the impact they have on elderly people experiencing cold-related illnesses including respiratory problems, strokes and heart attacks.



## Health

Many climate actions can also improve people's mental and physical health. For example:



- improve the air quality – currently 36,000 people die each year in the UK due to air pollution-related effects
- get people active – physical activity can improve mental as well as physical health
- keep people warm in their homes
- improve people's diets – reducing consumption of red meat and dairy.

## Equity and social cohesion

There are a number of climate actions which can help tackle inequalities and bring our communities together at the same time. For example:



- reduce the risk of fuel poverty in low income and deprived households
- improve the mobility of residents – particularly in more deprived areas
- improve access to green spaces or air quality in more deprived areas
- deliver access to skills, training and jobs.

## Economic opportunities

Some climate actions can reduce costs – for example saving money on energy bills – and others can have significant benefits to the local economy. For example:



- create new jobs in the low carbon economy
- support a just transition by delivering training to those in high carbon industries
- encourage people to spend more time in town centres
- create a better environment for local businesses to thrive.

**If a quarter of the population in England cycled regularly (including the use of electric bikes) all-cause mortality could fall by 11%.**

## Resilience and adaptation

Some climate actions can help communities, residents, and businesses to be more resilient and adapt to current and future changes. For example:



- improve ability to withstand the impacts of climate change
- increase ability to cope with future fuel or food price increases
- support adapting to future changes such as electric vehicles or decentralised energy.

## Wider environmental benefits

Some climate actions will also support nature's recovery by improving biodiversity or reducing water pollution. For example:



- urban tree planting absorbs carbon and provides shade but will also provide habitats for insects and birds
- reducing the amount of waste we create and send to landfill can prevent pollution entering our soils and waterways.

Many of these co-benefits will have knock-on effects which cause more benefits. Improved insulation leads to better resilience to rising fuel prices and better physical and mental wellbeing, which can then lead to reduced costs to the NHS and fewer days off work.



# Carbon Literacy

Carbon Literacy is...

*“An awareness of the carbon dioxide costs and impacts of everyday activities, and the ability and motivation to reduce emissions, on an individual, community and organisational basis.”*

In December 2020, we became a Bronze Carbon Literate Organisation when we established our training course and trained the Leader of the council, our chief executive officer and a number of other councillors and senior officers.

Since then, the training has become mandatory for senior officers and in July 2022 we became only the third local council to receive Silver Accreditation. For Silver, organisations need to train a substantial percentage of their workforce,

integrate Carbon Literacy into performance management, have a visual promotion of Carbon Literacy and publish a case study.

The most common piece of feedback we receive is “how can we deliver this to more people and businesses in our communities?”. So that is what we’re now doing.

In North Somerset we have used four Carbon Literacy courses:

- **Local Authority elected member course** – developed for North Somerset councillors, now used across the country
- **local council staff training**
- **Carbon Literacy training for local businesses**
- **Talking Climate with Jen Gale for community groups**

Certified individuals:

- **12** councillors
- **198** council officers
- **17** small business managers
- **18** community representatives

Carbon Literacy learners pledge two actions in order to receive their certificate. Since the start of the North Somerset Carbon Literacy programme, our learners have:

- made over 430 pledges
- saved over 650 tonnes CO<sub>2</sub>e each year

For more information go to [www.n-somerset.gov.uk/carbonliteracy](http://www.n-somerset.gov.uk/carbonliteracy)

It is such a great course it really hit home for me and I hope inspires everyone who participates to make changes. What a lovely job you have spreading this great message. I am so pleased that all types of people and teams are engaging across NSC.

*Many thanks for this course it has been very informative.*

*I hope to make positive changes going forward based on knowledge rather than the flaky foundation I was basing my ideas on!*

I just wanted to say thank you for an inspiring course – probably the best training I’ve had during my time at NSC!

*Although I felt I had a good level of knowledge before (this literally was my MSc study) you still updated me and provided me new links and food for thought, and also inspiration to up the pace and ambition, so there is no-one that shouldn’t be doing this because they ‘know it already’.*



## Governance

All strategies and action plans go through a corporate scrutiny process as they are developed, as well as after they are published via six-monthly progress reports. The Climate Emergency Strategy is owned by the cross-party member working group, with the action plan owned by the officers working group. Progress is reported to Corporate Management team via officers and to Executive via the members working group. The structure governing the projects, strategies, and plans surrounding the Climate Emergency is shown in the diagram.

### Elected Members

**Full Council**  
Six-monthly progress reports from the Scrutiny Panel

**Scrutiny Panel**  
Six-monthly progress reports plus project specific updates

**Cross-party Working Group**  
Six-weekly updates

### Joint

**Climate Emergency Steering Group**  
Quarterly progress reports

Leader of the Council  
Chief Executive Officer  
Executive Member for Climate Emergency  
Senior Responsible Officer

### Officers

**Corporate Leadership Team**  
Quarterly performance monitoring

**Senior Responsible Officer**  
(Director of Place)  
At least monthly updates

**Officers Working Group**  
Monthly updates

## Auditing

The Climate Emergency Team is currently undergoing its first internal audit, with a final report due in autumn 2022. Its aims are to ensure that a clear governance structure, integrated into the council's decision-making processes, is in place to forward climate change action within the council; to

ensure the formal adoption of a strategy and action plan; and to ensure that the implementation of the action plan is monitored and reported on regularly.

Internal audits happen across the council, and all audit work is reported to and monitored by the council's Audit Committee.

## Monitoring

The action plan is a working document and will be monitored, reviewed, and updated at least annually by the Climate Emergency team, as progress is made on achieving our objectives, and adjusted where new projects and priorities come to light.

Performance reports are also released quarterly to each directorate, showing how well our actions have progressed against the key priorities in the Corporate Plan to contribute to an **open, fairer, greener** North Somerset.



## Community

As a council, we recognise that we need to play an enabling role, working with the local community to raise awareness and understanding around climate change. The role of engagement in meeting our climate emergency ambitions is huge and should not be underestimated. The only way we can achieve our target is by working collaboratively and sharing responsibility.

### Community groups

North Somerset has a vibrant network of community groups and organisations, with a common goal of improving where we live for our residents and to ensure an all-inclusive approach to protecting and future-proofing our natural environment, habitats, and living and working spaces.

In 2019, Zero Carbon North Somerset was set up to work as an umbrella organisation to ensure all groups could collaborate and encourage a diverse range of voices to be heard. We endeavour to work closely with Zero Carbon North Somerset and all our local climate action groups to deliver what is needed in our community, as well as ensuring they feel part of the actions we are taking as a council.



Locking Parklands community.  
Photo provided by Alliance Homes

### Community energy

Community energy refers to the delivery of community-led renewable energy, energy demand reduction and energy supply projects, whether wholly owned and/or controlled by communities or through a partnership with commercial or public sector partners.<sup>1</sup>

There are a number of community energy companies in North Somerset which aim to help local communities reduce energy costs and use surplus income from their energy systems to fund local energy consumption reduction projects.

<sup>1</sup> <https://communityenergyengland.org/pages/what-is-community-energy>



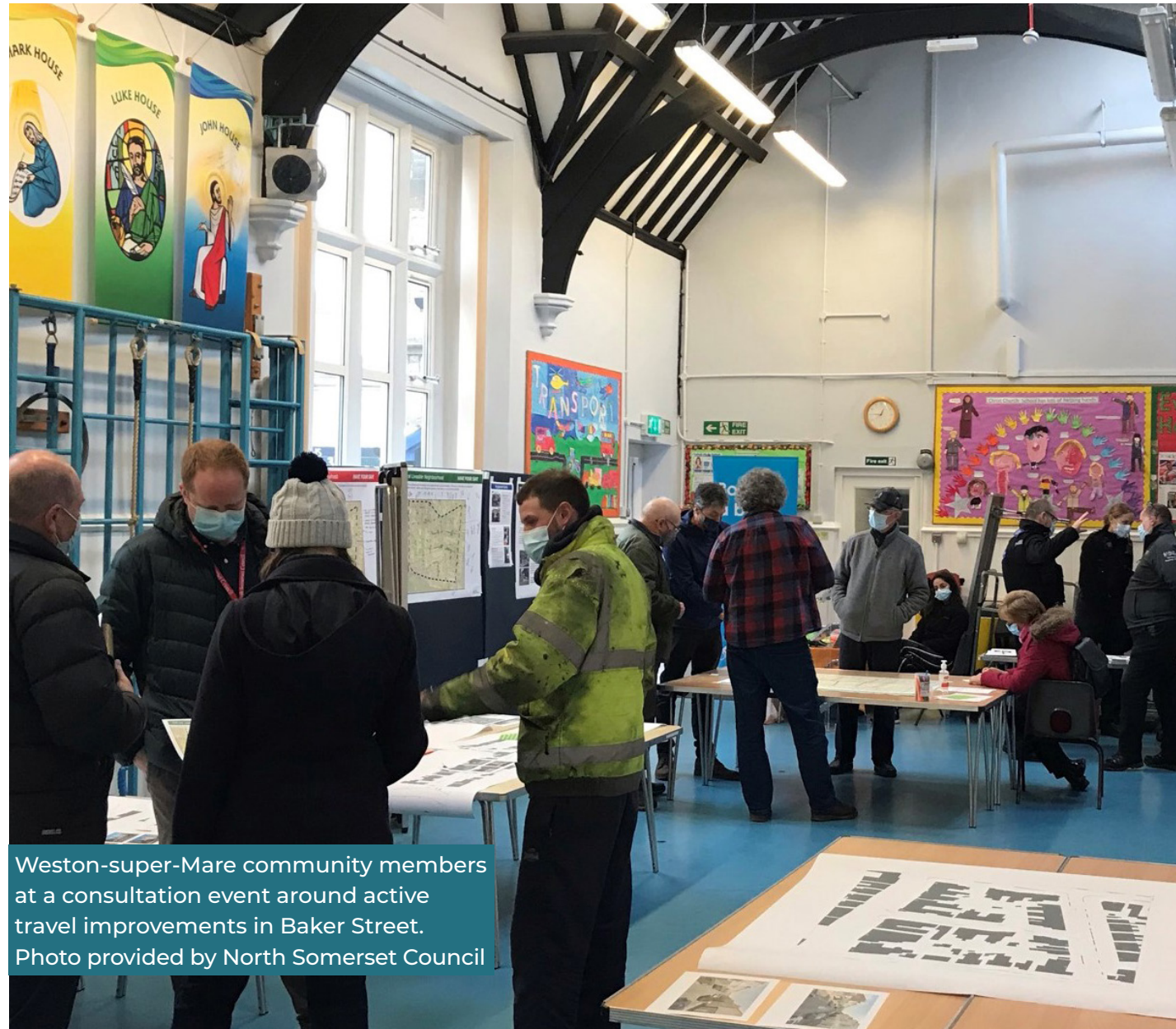
## Citizens' panel

The North Somerset Citizens' Panel is made up of local residents who want to share their views directly with the council and help ensure it delivers excellent local services. Panel members take part in online surveys and focus groups on specific local issues. Matters relating to climate and sustainability are part of the topics the panel considers, and relevant responses feed into the Climate Action Strategy and Action Plan.

## Funding advice for community groups

Funding for climate-related projects and initiatives is available through multiple organisations on a regular basis, both through national and local funding opportunities. We offer basic advice about opportunities for businesses and community organisations: links to current funding opportunities and some basic guidance can be found on [our website](#).

We will continue to work with local businesses, groups and community organisations to distribute, develop and aid funding opportunities for the development of projects and initiatives to improve our communities and to help the area to reach net zero ambitions.



Weston-super-Mare community members at a consultation event around active travel improvements in Baker Street. Photo provided by North Somerset Council

# Finance



	1-Jun	1-Jul	1-Aug	1-Sep	1-Oct	1-Nov	1-Dec
	1.307,85	1.240,64	1.235,42	939,09	1.300,67	843,29	1.240,64
	0,00	698,18	0,00	0,00	40,07	0,00	0,00
	215,80	78,42	38,16	15,62	256,67	25,46	0,00
	2,03	1.485,22	6.062,23	447,24	16.048,05	349,55	0,00
	5	677,87	503,91	1.094,97	5.620,31	2.560,60	0,00
		0,00	310,01	3.142,38	9.779,24	14.693,66	0,00
		0,00	670,64	1.259,50	4.294,85	7.473,24	0,00
		283,58	39.386,87	17.848,02	34.414,47	0,00	0,00
		0,00	0,00	0,00	0,00	0,00	0,00
			19.577,90	11.799,74	14.874,16	33.010,21	0,00
			1.335,55	21,76	865,15	348,10	0,00
			0,00	0,00	12.032,74	24.740,68	0,00
			0,00	0,00	4.387,73	18.444,80	0,00
				701,60	4.796,53	502,91	0,00
				2.144,68	2.120,27	1.727,45	0,00

## Resources

The council has a basic budget which covers specific climate emergency projects and staff time. However, responding to the climate emergency is now a core part of all council work and separating out the climate budget is not always possible.

The Climate Emergency Team is currently made up of one full time Climate Emergency Project Manager, one full time Climate Emergency Project Officer and a

dedicated Communications Officer two days per week. The team also supports apprenticeships and graduate schemes.

Further support is provided by a variety of officers which include a Domestic Retrofit Caseworker, the Active and Sustainable Transport Team, a Sustainability Officer, several Waste Minimisation Officers and an Economic Sector Support Officer.

## Funding

The council seeks funding wherever possible to support and enhance delivery of the actions within the Climate Emergency Action Plan. This includes bidding for government grants and other external funding, as well as assisting community groups and businesses to apply for funding. Some of the activities in the action plan will generate income or make savings.





## Current and future funding streams

### Public rights of way improvements

– resources have been allocated from existing revenue and Section 106 funding for network improvements such as vegetation clearance, surface improvements, improved signage and the creation of new routes

### Bus Strategy Improvement Plan (BSIP)

– provisional funding to improve the bus network across North Somerset has been awarded by DfT

### Waste: fleet replacement –

an allocation from existing revenue has been made to increase the waste fleet replacement programme budget, with the hope of replacing it with electric vehicles (EVs)

### Waste: Recycling Campaign –

an allocation from existing revenue has been made for a targeted campaign to increase recycling rates

### Biodiversity net gain –

funding has been allocated for the purchase of land to increase biodiversity

### Building energy efficiency –

funds have been borrowed for spend-to-save projects to improve the energy efficiency of council buildings. The payback period is expected to be approximately five years

### Decarbonisation plans –

funds from the Community Renewal Fund (CRF) have been used to produce decarbonisation plans for 30 public buildings and to provide training around energy and emissions reductions for building managers.

### Shared Prosperity Fund (SPF)

North Somerset Council has submitted an investment plan setting out how we intend to use and deliver over £2,500,000 of funding allocated through the SPF. A 'net zero dimension' has been woven into all SPF interventions, including specifying which net zero aims each project can contribute towards.

### Public Sector Decarbonisation Scheme (PSDS)

The PSDS is designed to help upgrade heating systems in public buildings into ones often powered by cleaner, cheaper, and renewable energy. Decarbonisation plans produced via CRF funding will be used to apply for PSDS funding.





# Emissions for the North Somerset area

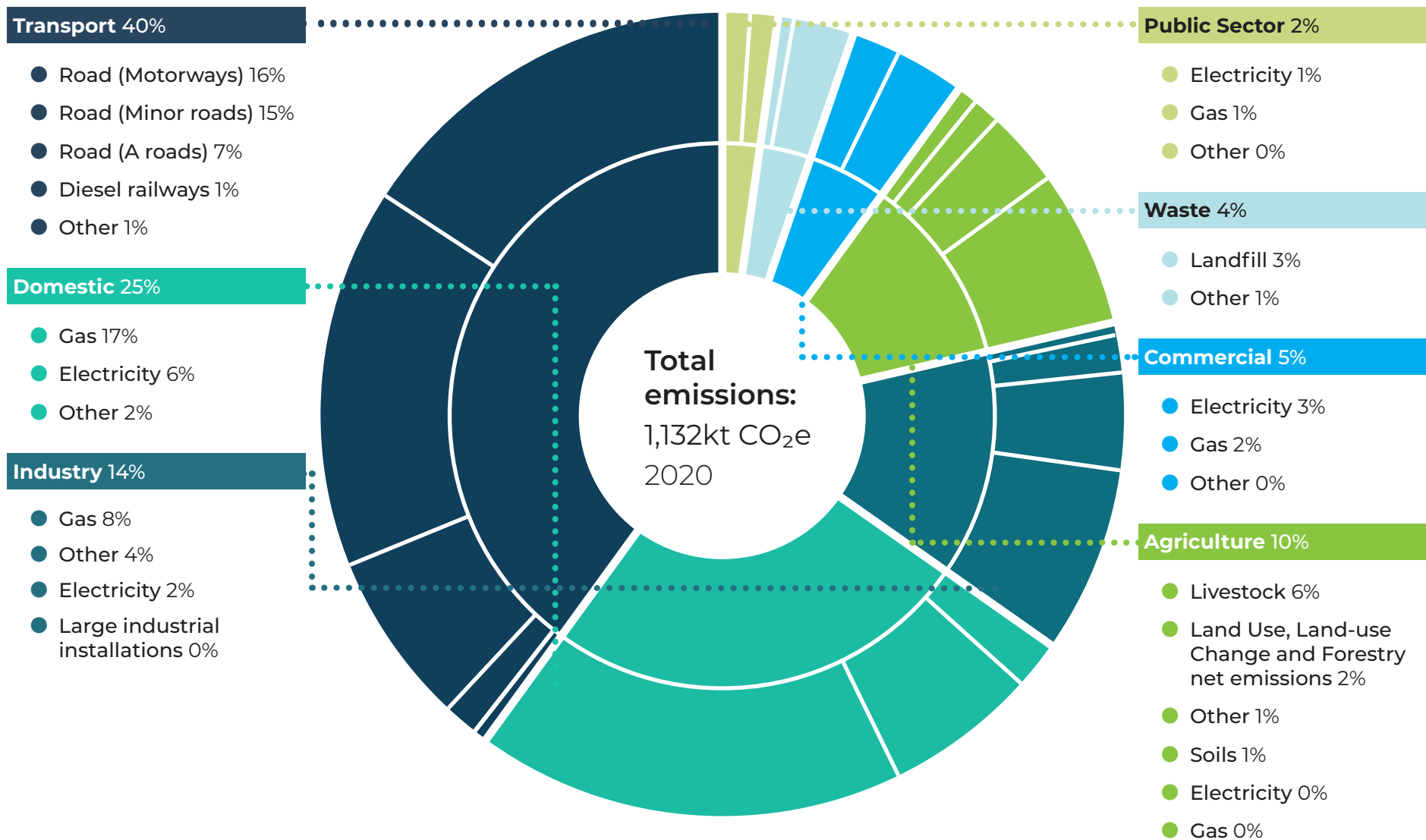
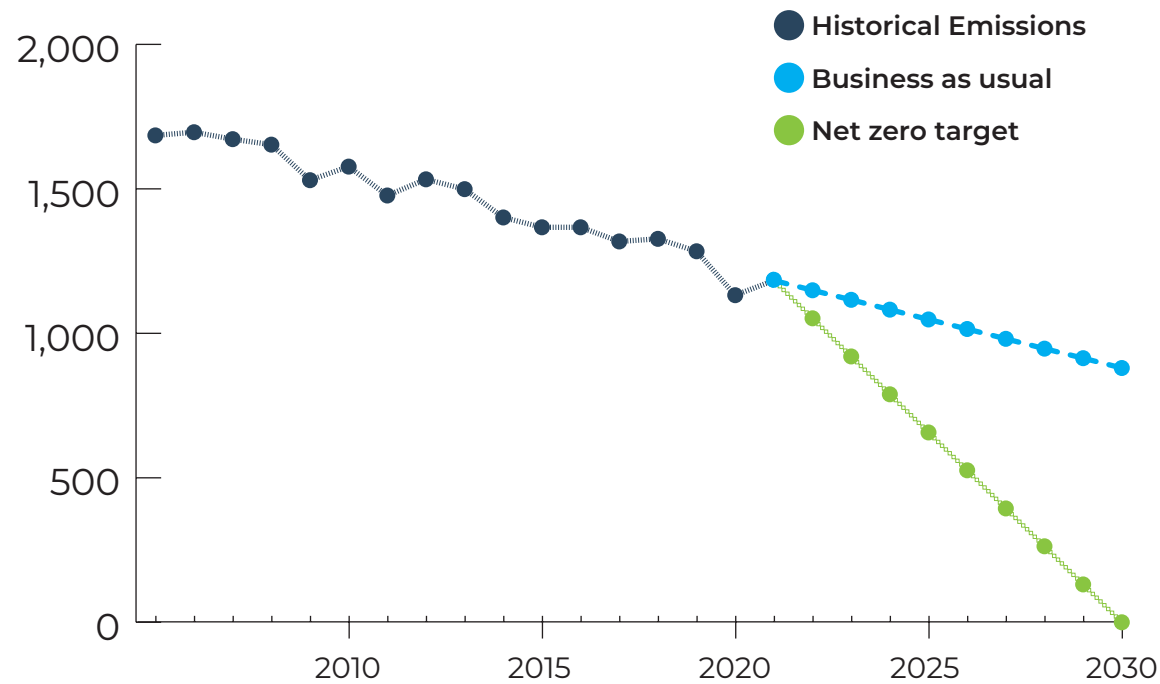


Figure 1: North Somerset Greenhouse Gas Emissions in 2020



# North Somerset Council Climate Emergency Action Plan

**Figure 2:** Projection of the current rate of reduction in greenhouse gas emissions to 2030 in North Somerset



Graph showing the historic decline in greenhouse gas emissions in the North Somerset area up to 2021, and two possible future projected declines up to 2030.

The graph shows that emissions were approximately 1,685 kilotonnes CO<sub>2</sub>e in 2005 and had gradually declined to 1,284 kilotonnes by 2019 (an average drop of approximately 31 kilotonnes per year over 14 years). It then shows a sharp drop of 152 kilotonnes between 2019 and 2020, due to the effect of the pandemic, and then a modest rise of 75 kilotonnes in 2021.

The graph's two future projected declines show 'business as usual' emissions vs 'target' emissions.

Business as usual emissions will decrease by approximately 34 kilotonnes per year, ending up at around 880 kilotonnes by 2030. Target emissions will end up at 0 kilotonnes by 2030.

This huge gap between business as usual and target emissions demonstrates why we must proactively work to reduce our emissions in North Somerset if we want to reach net zero by 2030. The trajectory of carbon emissions for North Somerset has been steadily decreasing throughout the timeseries. Some increases in certain years were due to colder winters meaning more heating was needed in buildings.

Year	Emissions (kt CO <sub>2</sub> e)		
	Historical	Future Business as usual	Net zero target
2005	1685	-	-
2006	1696	-	-
2007	1672	-	-
2008	1653	-	-
2009	1530	-	-
2010	1577	-	-
2011	1477	-	-
2012	1533	-	-
2013	1499	-	-
2014	1401	-	-
2015	1367	-	-
2016	1367	-	-
2017	1318	-	-
2018	1327	-	-
2019	1284	-	-
2020	1132	-	-
2021	-	1183	1183
2022	-	1149	1052
2023	-	1116	920
2024	-	1082	789
2025	-	1048	657
2026	-	1015	526
2027	-	981	394
2028	-	947	263
2029	-	914	131
2030	-	880	0



# North Somerset Council Climate Emergency Action Plan

In 2020, North Somerset's greenhouse gas emissions were 1,132 kt CO<sub>2</sub>e as seen in Figure 1.

This is based on government data and reported two years in arrears<sup>1</sup>. Our emissions are comprised of transport emissions (40%), emissions from the domestic sector (25%), industry (13%), agriculture (10%), commercial (5%), waste (3%) and public sector (2%).

This is the first time the government dataset has included a break down into industrial, commercial and public sector emissions and has also included emissions of methane and nitrous oxide.

Due to COVID-19, 2020 was an unusual year for emissions data. Provisional national data shows emissions increasing in 2021 by 4.7% after decreasing by 8.9% in 2020. This is particularly marked in the transport sector which increased by 10% in 2021 after decreasing by almost 20% in 2020. We expect the transport sector to make up approximately 43% of North Somerset's total in 2021.

Transport emissions are the greatest single contributor to North Somerset's greenhouse gas emissions, accounting for 453 kt CO<sub>2</sub>e. North Somerset Council made the decision to include emissions from the M5 and railway within this dataset, even though they are managed by Highways England and national rail companies. This

is because residents and businesses of North Somerset use these as daily modes of transport.

Domestic buildings emissions account for 286 ktCO<sub>2</sub>. Of these, 192 ktCO<sub>2</sub> account for domestic gas use, 72 ktCO<sub>2</sub> for domestic electricity use and 22 ktCO<sub>2</sub> for use of other fuels.

For non-domestic buildings and machinery, emissions were 249 kt CO<sub>2</sub>e (20%), with 121 kt CO<sub>2</sub>e from use of gas, 70 kt CO<sub>2</sub>e from electricity and 58 kt CO<sub>2</sub>e from other fuels.

Agricultural emissions make up 108 ktCO<sub>2</sub>e, of which 72 kt CO<sub>2</sub>e came from livestock, 22 kt CO<sub>2</sub>e from land use and 14 kt CO<sub>2</sub>e from agricultural soils.

## How we measure carbon emissions

These emissions come directly from the BEIS local authority and regional greenhouse gas emissions national statistics, 2005 to 2020. The Greenhouse Gas Protocol provides a global standardised framework to measure and manage emissions. To distinguish between emissions occurring inside and outside the area's boundary resulting from activities within North Somerset, emissions can be divided into three categories: scope 1, 2 and 3.

## Carbon trajectory for North Somerset

The main reason for the decrease in emissions is central Government targets to increase the renewable energy infrastructure nationally, resulting in a higher proportion of renewable energy feeding into the electricity supply, and technological advances leading to greater energy efficiency.

One sector of particular concern for North Somerset is Transport. Until 2020 and the impacts of the COVID-19 crisis, North Somerset had seen no clear decrease in emissions from road transport. Where national trends showed a steady decrease from 2007, this area has seen an increase in emissions since 2013. Reducing emissions from transport is a high priority area for North Somerset for the following reasons:

- emissions have remained high for a long time
- North Somerset Council has responsibility as the highways authority
- there are a large number of co-benefits associated with reduced traffic, increased active travel and improved public transport.

<sup>1</sup> UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020 – GOV.UK ([www.gov.uk](http://www.gov.uk))



## North Somerset Council Climate Emergency Action Plan

Assuming that there is minimal action beyond current, national policy and nationally led decarbonisation of the electricity grid and transport through electric vehicles, the estimated carbon emissions by 2030 will be approximately 880 ktCO<sub>2</sub>. The projected carbon emissions by 2030 have been calculated following an extrapolation of the data provided by BEIS.

The overall picture is needed to help us understand the extent of the response required. We also use tools available to local authorities such as the **Tyndall report** and the **Scatter Tool** to build scenarios that help to understand the uncertainties and key elements that will affect emissions in the future.



# Emissions for North Somerset Council

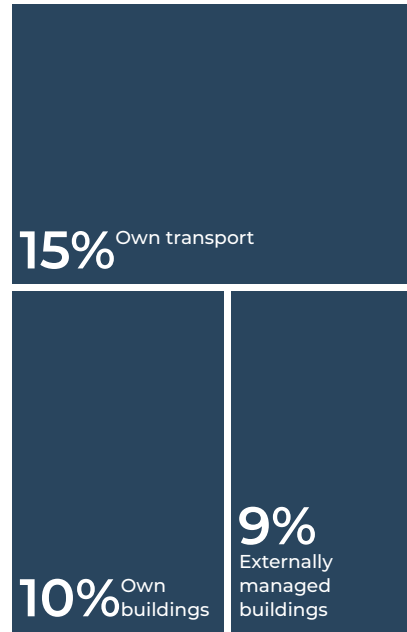
As well as monitoring emissions for the North Somerset area, the council also monitors its own organisational emissions. Each year we have improved the completeness of our inventory by including more information as it becomes available. For example, last year we included information on our leisure centres, and this year we have calculated data from our Home to School Transport (HTST) scheme for the first time. In the future, we hope to be able to include more information from suppliers to cover the whole supply chain.

## How do we calculate emissions?

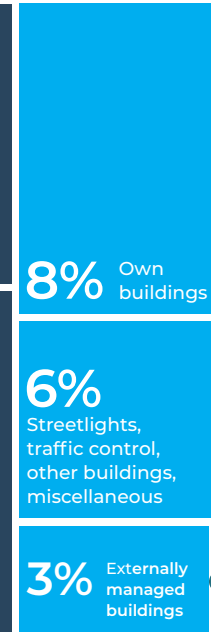
The 2018/19 financial year acts as a baseline for monitoring future emissions against. There are three emissions 'scopes' that are calculated for the report:

- Scope 1: direct emissions from our buildings and vehicles
- Scope 2: emissions from electricity consumption
- Scope 3: all other indirect emissions, such as business travel, employee commuting, fuel use etc.

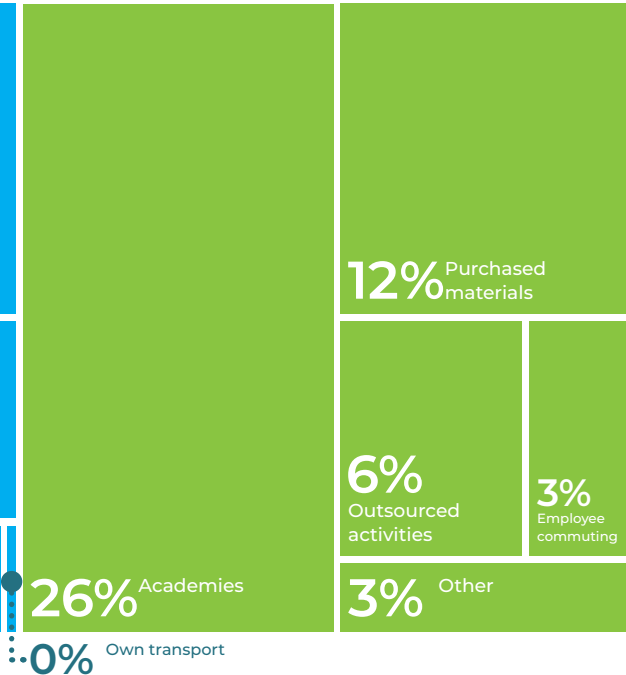
**Scope 1**  
Direct emissions  
(fuel consumption)



**Scope 2**  
Direct emissions  
(electricity consumption)



**Scope 3**  
Indirect emissions  
(everything else)



The council has aspirations to lead by example and reach carbon neutrality for at least Scopes 1 and 2 at an earlier date than 2030 if possible. We report as much as we can for Scope 3 emissions – including those from our major contractors, business transport, commuting and academies.

## What are the council's own emissions?

During the 2021/22 financial year, emissions have actually increased from the previous year, due mainly to reversal of reductions due to COVID-19.



# North Somerset Council Climate Emergency Action Plan

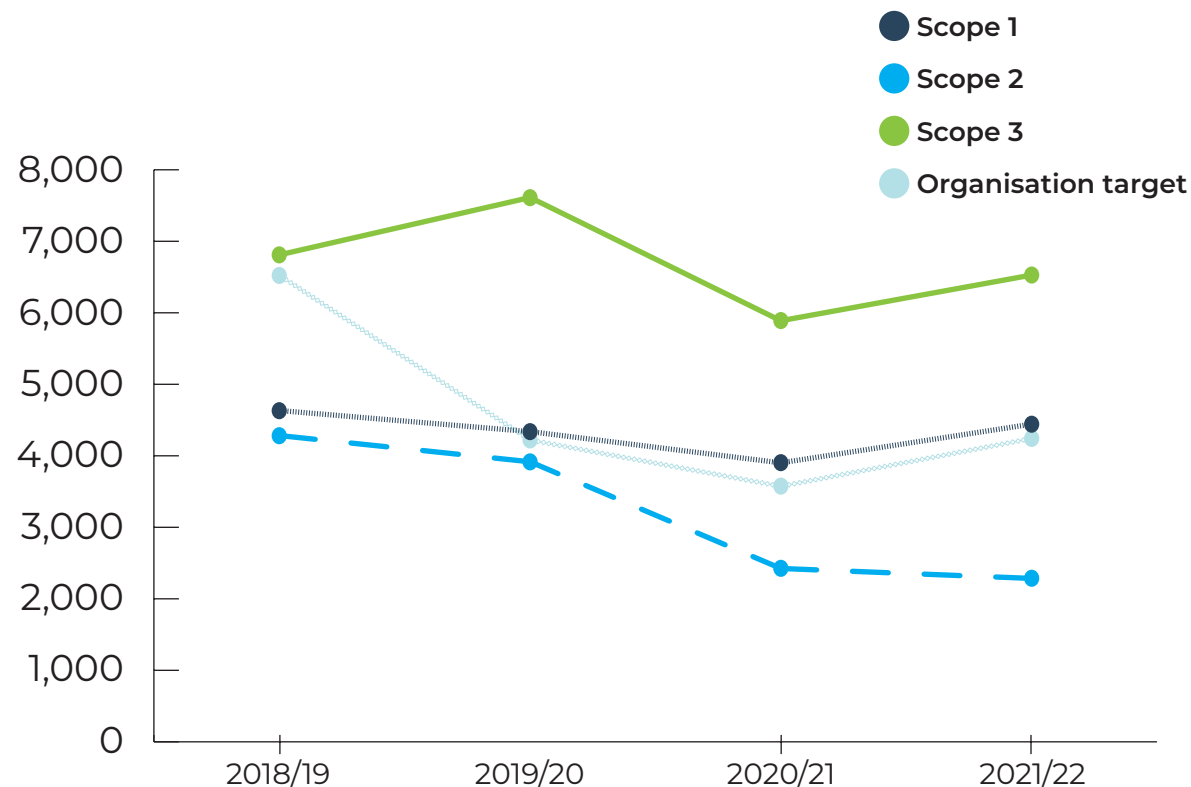
Emissions from leisure centres have returned to pre-COVID-19 levels and some buildings have shown an increase as the advice was to keep windows open and ventilation systems running throughout winter; emissions from the fleet have also returned to almost pre-pandemic levels.

Where reductions have been most successful is the LED streetlighting replacements which have reduced energy use by over 50%. In 2021/22, over 1,200 tonnes CO<sub>2</sub>e was saved compared to 2018/19.

In order to meet our zero carbon target as an organisation, we will need to step up our delivery. See the [action plan](#) for more information.

	Scope 1	Scope 2	Scope 3	Organisation target
2018/19	4,631	4,281	6,811	6,523
2019/20	4,338	3,915	7,611	4,222
2020/21	3,904	2,426	5,892	3,576
2021/22	4,442	2,287	6,529	4,243

**Figure 3:** NSC organisational emissions between 2018/19 and 2021/22”



This graph shows the emissions released by North Somerset Council as an organisation between the financial years 2018/19 and 2021/22. It has lines representing Scope 1, 2 and 3 emissions, as well as a line representing overall Scope 1+2 emissions, taking into account renewable energy generation (labelled as 'Organisation target').

The graph shows that emissions for all scopes declined up to 2020/21. They then rose again for scopes 1 and 3. This rise is due to the inevitable increase in emissions after the end of the COVID-19 lockdowns, caused by

things like an increase in commuting and greater use of leisure centres. Scope 2 emissions did not rise in 2021/22 due to a project increasing the energy efficiency of all of North Somerset's streetlights.

Despite this rise, the graph shows that Scope 1, 2 and 3 emissions have all declined between 2018/19 and 2021/22 as a whole. Overall organisation emissions are 35% lower in 2021/22 compared with 2018/19, having reduced from 6,523 tonnes to 4,243 tonnes over that four-year period.





# Action Plan

## Key Principles

- |                                       |    |
|---------------------------------------|----|
| 1 – Become a net zero carbon council  | 28 |
| 2 – Decarbonise transport             | 31 |
| 3 – Decarbonise the built environment | 34 |
| 4 – Low carbon business and skills    | 39 |
| 5 – Renewable energy generation       | 41 |
| 6 – Resource and waste                | 44 |
| 7 – Adaptation and resilience         | 46 |
| 8 – Replenish our carbon stores       | 48 |

FOREVER  
GREEN  
SUE GRANT  
HER  
VISION



## Action Plan

The following pages give information about the eight key principles of the North Somerset Climate Emergency Action Plan – what they mean, what actions are included and what co-benefits they bring.

The action plan dashboard is separate to this document and can be found [here](#). It contains actions we know we need to take in the coming years, but it is not exhaustive. Short term actions can be achieved within one or two years (2022-2024), medium term actions are designed to take several years to reach fulfilment (2025-2028), and longer-term actions will take longer to come to fruition (2028-2030).

Areas we directly control

Areas we can influence through our contracts or through funding/support

Areas we can influence through policy activity

Areas we can influence or ask for help and support locally

Areas we can influence or ask for help and support nationally

North Somerset Council's matrix of influence



# 1 – Become a net zero carbon council

## Key information

One of the key principles of our action plan is to become a net zero carbon council, which is in line with our corporate vision of a greener North Somerset.<sup>1</sup> We see a key part of that principle as taking a leadership role – to encourage, support and enable others to act on climate change. This key principle is not just about reducing the direct emissions of the council, but about introducing a low carbon culture across our services and beyond.

Although the council's own direct carbon footprint is just a small part of North Somerset's total emissions, there are many reasons to tackle it as an urgent priority. The council can benefit from Government grants such as the Public Sector Decarbonisation Scheme. This can not only reduce emissions, but also demonstrate what is possible and stimulate the green economy.

The council also has increasing influence on emissions in areas such as procurement, funding, local policy and partnership working. We will also continue to ask



Weston-super-Mare Town Hall.  
Photo provided by North Somerset Council

central government for more support for climate action.

Emissions directly caused by the council come from the buildings we own and manage, council owned vehicles such as waste collection vehicles, and services we run such as streetlights and road signs.

Our indirect (Scope 3) emissions come from services which are run by contractors such

as home to school transport and street cleansing, as well as materials purchased for highways maintenance. We also chose to include an estimate for academies within Scope 3.

<sup>1</sup> NSC Corporate Plan 2020-24



## Co-benefits

- **Resilience and adaptation** – renewable energy and energy efficiency improvements protect against rising energy prices
- **Health** – flexible working promotes good work/life balance. Cycle to work improves mental and physical health and reduces air pollution
- **Economic opportunities** – renewable energy and energy efficiency improvements reduce energy bills and could provide income

## What are we doing now?

North Somerset Council has a large number of buildings and other assets, many of which are leased to other users. Over the last two years the council has been building up a picture of what needs to be done to the core buildings. Recommendations from energy efficiency audits are starting to take place and should save almost 200 tonnes CO<sub>2</sub>e and upwards of £60,000 in energy costs each year.

The Community Renewal Fund is being used to produce decarbonisation plans for 30 public buildings – including the Town Hall, leisure centres, libraries, schools and children's centres. These plans can be used

to inform future work and access future funding rounds.

The council's vehicles are mainly electric now, with only the larger vehicles continuing to use petrol and diesel – waste collection vehicles, the library bus and beach ranger vehicles for example. We continue to review the options available to decarbonise our larger vehicles.

As an interim step, we are trialling using Hydrogenated Vegetable Oil (HVO) in our winter gritting lorries, which can save 90% of carbon emissions from fuel consumption. This could be rolled out to the wider fleet in the future.

Since the COVID-19 crisis, our staff have been mainly home based. Studies show that home working is on average the lowest carbon work style, especially when repurposing office buildings is taken into account.

## What still needs to happen?

We are building a long-term plan for the council's assets. In the short term, energy efficiency measures are taking place and decarbonisation plans will be used to bid for funding to replace boilers with heat pumps or other low carbon alternatives. In the longer term we will need to prioritise

larger retrofit projects and extend this work to buildings which are leased to other users.

## Key achievements

Since declaring a climate emergency, North Somerset Council has made many changes to the way things are done. Part of this change can be put down to Carbon Literacy training which is offered to all council staff and councillors and is mandatory for officers above a certain level.

Carbon Literacy has been used to build individual climate action plans for our directorates, so that teams from Adults' and Children's Services; Public Health and Regulatory Services, and Corporate Services understand the roles they have in responding to the climate emergency. It's not just the job of people with a specifically environmental role.

In July 2022, we became the third Local Authority in the UK to receive a Silver Carbon Literacy accreditation.

The council spends around £170 million per year with suppliers and many of the services that we provide are delivered through these suppliers. The council's procurement strategy has been updated to reflect the climate emergency ambitions. This includes working with our contractors, partners and services providers to support



# North Somerset Council Climate Emergency Action Plan

them to improve their approaches and will lead to minimum standards for suppliers.

During 2022, the Care Home Innovation and Sustainability Grant was offered to care homes in North Somerset. £400,000 has been awarded to care homes for projects to reduce energy costs and greenhouse gas emissions.

In 2021 we introduced Ecosia as the default search engine for council staff. Ecosia uses profit from searches to plant trees in areas they are needed most. This action will not reduce the carbon footprint of the council; however, it is an example of an everyday action that can be taken for the better – to reduce global emissions, improve the environment for vulnerable communities and to remind people every day about the commitment we have made. To date, Ecosia has planted over 150,000,000 trees worldwide and over 500 of those are from North Somerset Council searches.

**To become a net zero carbon council, we will take the following actions. Full details can be found in the [Climate Emergency Action Plan Dashboard](#).**

## Net zero council buildings

- Ensure all the council's electricity supply is provided by 100% renewably generated sources by purchasing the greenest available tariff and increasing own renewable energy generation
- Reduce emissions from council building heating, lighting and cooling systems by producing a long-term plan for decarbonisation which includes immediate improvement of energy efficiency and replacement of heating systems with low carbon options

## Reduce emissions from council vehicles and staff travel

- Increase use of electric vehicles through fleet replacement and improvement of council charging infrastructure
- Decarbonise larger vehicles such as waste collection vehicles and maintenance vehicles
- Support flexible working and home working
- Continue to provide/promote schemes such as 'cycle to work' and 'TravelWest

challenge' to encourage sustainable transport choices by our workforce

## Reduce emissions from major projects

- Continue to use PAS2080 standard for measuring carbon emissions for construction and infrastructure and ensure consistent method across all capital projects

## Council policies to support a low carbon transition

- Take a leadership role across the area to encourage, support and enable others to reduce their carbon emissions through increasing our Carbon Literacy offering and identifying opportunities to promote low carbon lifestyles
- Ensure consistent and informative communications around the Climate Emergency, to support residents and businesses to take action. Provide and share information with residents and businesses on how to reduce carbon emissions
- Continue to develop the council's sustainable procurement policies and practices
- Work with schools and other stakeholders to ensure their estate is energy efficient and install renewable energy sources





## 2 – Decarbonise transport

### Key information

Transport is a key sector in North Somerset for emissions reductions for a number of reasons:

- Transport, particularly road transport makes up 40% of greenhouse gas emissions in the area and they have remained high for many years.
  - ◆ The technology to significantly reduce emissions already exists
  - ◆ Walking, wheeling and public transport are existing low/zero carbon options
  - ◆ Electric vehicles will also reduce emissions but not by enough
  - ◆ Investment is required to make these options more accessible but less than for decarbonisation of all buildings

- There are significant co-benefits of reducing the number of polluting cars on the roads
  - ◆ Improved air quality – currently an estimated 36,000 people die a year in the UK due to air pollution
  - ◆ Improved health and wellbeing from active travel
  - ◆ Increased footfall to local businesses where walking is supported

**Journeys under 2 miles made up around 45% of all urban trips in England in 2019, and journeys below 5 miles made up 58% of all car trips<sup>1</sup>. 44% say they would like to cycle more than they currently do and 71% say they support actions to encourage more people to walk or cycle instead of driving a car. But to achieve more active travel, the right infrastructure needs to be in place.**

We have been working with the West of England Combined Authority over the last year on a transport decarbonisation study. This study is showing the scale of the challenge. Converting vehicles to electric

Woman cycling to the shops in Clevedon. Image provided by North Somerset Council



<sup>1</sup> DfT, April 2022



will not be enough, a significant reduction in car travel will be required. National policies such as banning the sale of petrol and diesel vehicles by 2030 will only take us so far.

The next stages of this work will look at the options available for decarbonising transport in the West of England region.

## Co-benefits

- **Health** – increased active travel improves mental and physical wellbeing. Reduced road transport improves air quality
- **Economic opportunities** – investment in new infrastructure brings new job opportunities. Increased footfall in local businesses where active travel supported
- **Equality and social cohesion** – improved transport for all, reduced cost of bus travel
- **Wider environmental benefits** – place-based planning for more active transport can improve biodiversity

## What are we doing now?

In April 2022, North Somerset Council was informed it will receive approximately £50 million for public transport through the Bus Service Improvement Plan, as part of a combined plan from the West of England Combined Authority, which secured a total of £105.5 million. The plans aim to introduce a simpler fares system that gives better value for money, with improved speed, frequency and predictability as well as new infrastructure.

This means more successful schemes like Weston Town Centre’s Bus Interchange can be further consolidated and frequency across North Somerset can be improved. The bus interchange in Weston has improved bus stop provision, providing a more legible and coherent offer for bus users. Furthermore, bus lane enforcement camera pilot schemes are now being installed in Weston to optimise the benefits to bus journey times and improve the lanes’ attractiveness to cyclists.

Many improvements have also been made to active travel opportunities. The Pier to Pier Way cycle route is currently under construction and will cut the cycle distance between Weston and Clevedon by approximately 5 miles via more attractive, off-road and quiet lanes.

Delivery has begun for Active Travel Fund 2 flagship schemes at Clevedon’s Hill Road and Seafront, as well as on the ‘Summerlands to the Seafront’ route along Milton Road and Baker Street in Weston. Funding has also been secured for ‘Active Travel Fund 3’ schemes, including Weston Central Liveable Neighbourhood, School Streets schemes outside Crockerne and Windwhistle Primary Schools, and funding secured to support Yatton High Street Pedestrian Improvements schemes, which will now include a wider 20mph area on residential roads like Stowey Road and Mendip Road.

These efforts are being well supported across the council’s services. The emerging Local Plan (Reg 18) sets out a policy approach that prioritises the delivery of active travel and public transport to cater for additional trips generated by new developments.



## What still needs to happen?

A 'Big Conversation' on the area's transport challenges and choices will take place to gain further understanding of North Somerset's priorities to reach net-zero carbon. This process will be enhanced by the release of DfT guidance on updating Local Transport Plans (LTPs), including target setting, monitoring, and reporting on a mode shift to active modes, and Quantifiable Carbon Reductions (QCRs) from transport schemes.

By setting the route to net-zero by 2030, a suite of action plans and strategies will be implemented to reach this target, including a Traffic and Parking Framework and a Place & Movement Framework (to be developed in 2022-23, and adopted in 2023-24), a Freight Strategy, a Rural Mobility Strategy and a Rail Action Plan. A scoring and prioritisation process will be set up to filter and prioritise transport improvement schemes for feasibility, design, consultation and implementation work based on their value for money and decarbonising credentials.

An electric vehicle (EV) strategy will be developed in partnership with the West of England to utilise funding from future grant opportunities and enable rollout of EV charging infrastructure in line with neighbouring authorities.

There are plans to secure funding and planning approval to deliver a number of schemes, including reopening the railway line to passenger services between Portishead and Bristol through the Metrowest programme.

To decarbonise transport, we will take the following action. Full details can be found in the [Climate Emergency Action Plan Dashboard](#).

### Reduce total distance travelled by road by 25% by 2030

- Continue to drive project delivery to shift from private car use by acting on recommendations from the West of England transport decarbonisation study
- Develop and secure funding for projects to grow the walking and cycling network across the district
- Encourage our residents to consider their transport choices through parking schemes, car sharing schemes and other measures
- Develop and deliver the Bus Service Improvement Plan

### Support transition to electric vehicles

- Continue to develop the electric vehicle charging network





## 3 – Decarbonise the built environment

### Key information

Almost half (47%) of North Somerset's greenhouse gas emissions come from non-transport energy consumption. A large proportion of this is from buildings although a small amount will be in mobile machinery.

The Committee on Climate Change (CCC) recommends that to reach net zero, all of the UK's buildings should be energy efficient and all boiler replacements should use low-carbon technologies such as heat pumps. Alternatively, they should be part of a zone for district heating, or a hydrogen option<sup>1</sup>.

Reducing greenhouse gas emissions from existing buildings – through insulation for example – is called retrofitting. Retrofitting large numbers of buildings is not straightforward. It can be expensive, there is a shortage of skilled workers, and although the UK Heat and Buildings Strategy<sup>2</sup> gives guidance on this issue, a long-term national strategy is needed to retrofit thousands of homes and build up the workforce.



A sustainable eco-home in Portishead.  
Photo provided by Alliance Homes

1 [Sector-summary-Buildings.pdf \(theccc.org.uk\)](#)

2 [UK HBS \(GOV.UK\)](#)

# Household Energy Efficiency Rating

2018 – % of households	2018 Average	2027 Target*
<i>Very energy efficient – lower running costs</i>		
0.0% <b>A</b>		
0.4% <b>B</b>		
25.5% <b>C</b>		<b>C</b>
50.1% <b>D</b>	<b>D</b>	
17.2% <b>E</b>		
5.2% <b>F</b>		
1.6% <b>G</b>		
<i>Not energy efficient – higher running costs</i>		

**North Somerset**  
 \*This is a central government target



A housing stock condition survey has been carried out to provide robust data on private housing stock, including detailed analysis of the energy efficiency of dwellings.

Building a house – or commercial property – produces greenhouse emissions. This is called embodied emissions – emissions caused during construction and the production of building materials. So, demolishing an existing inefficient building to replace it with a new efficiency building often produces more emissions than improving the existing building.

When new buildings are built, they should be as low carbon as possible, including through sustainable construction methods, location and infrastructure to support active travel, and by constructing much more efficient buildings.

In 2021, we updated our Creating Sustainable Buildings and Places Sustainable Planning Document which gives guidance on how to build more sustainably. This is in advance of the new Local Plan, which will set the direction of development in North Somerset until 2038.



## Co-benefits

- **Health** – improved energy efficiency of homes improves physical and mental wellbeing
- **Equity and social cohesion** – supporting disadvantaged households, to mitigate fuel poverty and improve wellbeing
- **Economic benefits** – increasing job and skills opportunities
- **Resilience and adaptation** – renewable energy and energy efficiency improvements protect against rising energy prices

## What are we doing now?

A Domestic Retrofit Caseworker has been appointed, to support domestic retrofit in the local area, providing technical knowledge in this complex sector. The council is also working with partners, regionally and nationally, to understand what is needed to support mass retrofit in the region.

The Local Authority Delivery Scheme Phase 1b (LAD1b) funding from the Department for Business, Energy & Industrial Strategy (BEIS) provided a share of £3.6m to the council to fund home retrofit upgrades.

<sup>3</sup> LAD2 internal dashboard data

This funding has been used to improve the energy efficiency of 48 park homes, 50 Alliance social homes, and 50 private sector homes.

The Green Homes Grant Local Authority Delivery Scheme Phase 2 (LAD2) aims to raise the energy efficiency of low-income and low-energy performance homes. The Phase 2 funding awarded to the South West Net Zero Hub of £53,200,000 is primarily being used for solar PV within North Somerset, with 125 units installed to date<sup>3</sup>.

The Sustainable Warmth (BEIS) programme has commenced through the Home Upgrade Grant (HUG). This is the next phase of government funding scheduled to improve energy efficiency of a further 25 park homes and 50 private sector dwellings. This scheme will run to March 2023, in partnership with neighbouring authorities; an announcement of a further round of HUG is expected in the Autumn.

The timetable for the Social Housing Decarbonisation Fund (Phase 2) has been announced with a provisional launch date in early September; local social housing providers are being encouraged to apply.

Ofgem have published new guidance in relation to the Energy Company Obligation (ECO4); a revised Statement of Intent will

be published in August to extend the eligibility criteria of low-income households living in cold homes.

The Housing Strategy (2022-27) contains commitments aimed at the decarbonisation of existing and future homes. Commitments included targeting private rented homes for improvement or intervention to reach Energy Performance Certificate (EPC) band C, providing access to low-cost loans and working with energy advice and grant providers to help residents improve their properties, and ensuring sustainability and a net-zero built environment are built into the policy framework of the new Local Plan.

The Centre for Sustainable Energy provided a housing retrofit survey competition for local residents, and hosted a series of local roadshows, providing people with energy and home retrofit advice and support. These were funded through the Community Renewal Fund and the council is planning to extend the roadshows in the future.

Our emerging Local Plan is demonstrating our commitment to decarbonise existing and future homes through the net zero construction draft policy, which will be taken forward into the next version of the Local Plan. This policy will require all





# North Somerset Council Climate Emergency Action Plan

new development (both residential and non-residential) to demonstrate net zero operational energy compliance from plan adoption.

## What still needs to happen?

An Affordable Warmth Delivery Plan is in the pipeline, although delayed while assessing the impact of the recent energy cost increases. Stock condition data will help draft the plan, which is aimed at helping low-income households to alleviate fuel poverty through measures such as increasing home energy efficiency.

The Government has indicated it will continue funding programmes under the Heat and Building Strategy, and the next Sustainable Warmth funding round will shortly be announced for 2023/24.

A database has been obtained to provide baseline analytics of the housing stock which will allow targeted interventions towards the least energy efficient homes, and which will provide information about the support available. Investment and improvement scenarios will be available to demonstrate pathways to EPC Level C and net zero. The council is also cautiously welcoming the central government Boiler Upgrade Scheme, which opened in April

2022. It is designed to help speed up the uptake of heat pumps by subsidising the cost of replacing an old boiler with the new ground or air source heat pump.

It's our policy to back home retrofitting. This includes signing up to the Great Homes Upgrade campaign as a supporting organisation and setting up a local retrofit task force to help gather the evidence base, skills and expertise to kick start the process in the area. Subject to further discussions with the appropriate Director, this motion was approved<sup>4</sup>.

An initial workshop has been held with lead members and officers and a briefing paper is being prepared, pulling together the critical elements for accelerating a retrofit programme and the key actions for the council, ranging from skills and training, retrofit coordination and technical advice/support, supply chains and sources of funding.

The draft net zero construction policy requires all major developments to set out how embodied emissions have been taken into consideration through an embodied carbon assessment. Net zero embodied carbon is targeted for 2030.

To decarbonise the built environment, we will take the following action. Full details can be found in the [Climate Emergency Action Plan Dashboard](#).

## Finalise and adopt the Local Plan 2038 with climate change as a high priority focus

- Aim for all our new homes to be zero carbon or net carbon plus
- Aim to focus new mixed-use development on brownfield land, in town centres with public transport and proximity to major employment hubs
- Develop planning policy to actively support community led housing, self-build and custom build housing and consider use of council land to enable this

## Low carbon buildings

- Where possible, specify precision manufactured buildings for homes, community and commercial space
- Aim for all our own new commercial space to be zero carbon or net carbon plus

<sup>4</sup> (Public Pack)Minutes Document for Council, 12/04/2022 18:00 (modern.gov.co.uk)





# North Somerset Council Climate Emergency Action Plan

## Deliver the energy efficiency and climate change aims of the North Somerset Housing Strategy

- Work with energy advice/grant providers to deliver energy efficiency measures to support those affected by fuel poverty and assist in achieving climate change aims
- Work with Alliance Homes and other Housing Associations to encourage and support net zero targets
- Enforce/increase requirement for energy efficiency in the private rented sector
- Investigate retrofitting/energiesprong opportunities

## Promote, educate and provide advice about energy and carbon reduction in buildings

- Support, encourage and enable homeowners and businesses to improve energy efficiency of existing buildings
- Work with schools and other stakeholders to ensure their estate is energy efficient and install renewable energy sources
- Support Town and Parish councils with their building improvements
- Take opportunities to retrofit and/or improve the home energy efficiency of existing buildings



## 4 – Low carbon business and skills

### Key information

There are two key areas to address for the business and skills area when considering climate action: doing business in a low carbon way; and doing business that supports a low carbon transition.

Businesses – both new and old – will need support to be able to operate in the net zero future. They will need support to improve energy efficiency and decarbonise the buildings, equipment and transport that they use.

Achieving net zero will need people with new skills and in new jobs. It is predicted that employment in the retrofit sector will need to at least double over the next 5 years to meet net zero. Analysis shows that job growth needed to meet net zero by 2030 will require an increase well above this rate.

There is a skills shortage in the green economy. With so many buildings which require decarbonisation across North Somerset, and the whole country, a large workforce will be required<sup>1</sup>.



The Foodworks in Weston Business Quarter.  
Photo provided by North Somerset Council

<sup>1</sup> For more information, see the [West of England Combined Authority Green Skills Report](#)

## Co-benefits

- **Resilience and adaptation** – renewable energy and energy efficiency improvements protect against rising energy prices. This raises the awareness of businesses to the need to adapt to climate change
- **Economic opportunities** – increased skills and job opportunities in the green economy

## What are we doing now?

In early 2022, companies in North Somerset were invited to book a free package of business carbon support made up of Carbon Literacy training, a carbon baseline assessment report, and carbon reduction plan. A total of 17 businesses, representing over 200 employees, are being supported through this support programme.

During the same period, the council received support from the Local Government Association (LGA) to produce a report looking at how best to support Small and Medium-sized Enterprises (SMEs) in reducing emissions and adapting to climate change. Over the coming year, this report, together with lessons learned from the business carbon support pilot,

will be used to develop future support programmes.

Since 2020, the West of England Combined Authority has been running Green Business Grants. Businesses in North Somerset can access free carbon surveys to inform energy saving improvements that can be made to their buildings and business operations. They can then receive grants of up to 50% of the cost of improvements. The latest round finished in June 2022. To date, 42 businesses in North Somerset have made applications to the Green Business Grants and 15 businesses have received support totalling £113,561.

The North Somerset Enterprise Agency has set up a sustainable business club which meets quarterly to discuss opportunities and methods for reducing emissions across the whole supply chain.

## What still needs to happen?

It's our policy to back home retrofitting. This includes signing up to the Great Homes Upgrade campaign as a supporting organisation and setting up a local retrofit task force to help gather the evidence base, skills and expertise to kick start the process in the area<sup>2</sup>.

Following recommendations from the LGA report on how best to support SMEs, the council will develop a business decarbonisation action plan.

Investing in net-zero climate solutions creates value and rewards. Firms that ignore the climate crisis will go bankrupt

– Mark Carney,  
former Governor of the Bank of England

To improve low carbon business and skills, we will take the following action. Full details can be found in the [Climate Emergency Action Plan Dashboard](#).

### Support North Somerset Businesses to reduce carbon emissions and improve resilience to climate change

- Develop a robust action plan to support SMEs with decarbonisation
- Ensure Carbon Literacy training is available in North Somerset
- Develop Green Business Grants programme linked to procurement and supply chain

2 (Public Pack)Minutes Document for Council, 12/04/2022 18:00 (moderngov.co.uk)





# North Somerset Council Climate Emergency Action Plan

## Support expansion of the green economy

- Promote and encourage sustainable inward investment opportunities
- Work with partners to develop a framework to encourage and support Careers Education, Information, Advice and Guidance (CEIAG) around green skills





## 5 – Renewable energy generation



A wind turbine in Avonmouth.  
Photo provided by Bristol Design – Bristol City Council

### Key information

In 2020, renewable energy generation made up 13% of all electricity consumption in North Somerset and approximately 2% of all national energy consumption. There is 85 GW of installed capacity in the area.

North Somerset Council has several key roles to play that can facilitate the use and generation of renewable and low and zero-carbon energy. These include:

- Preparing planning policies and allocating land or identifying areas of search to inform preparation of Local Plans.
- taking decisions on planning applications submitted to the council for development.
- leading and progressing wider community action and communicating the need to increase the uptake of renewable energy.

## Co-benefits

- **Resilience and adaptation** – renewable energy generation protects against rising energy prices
- **Economic opportunities** – reduce energy bills and could provide income
- **Equity and social cohesion** – community energy projects can bring communities together and provide social value to surrounding communities

## What are we doing now?

In partnership with South Gloucestershire and Bath & North East Somerset councils, we commissioned a study looking at the renewable energy potential in the region. The report identifies areas suitable for various types of energy generation and recommendations for planning policy, which are being considered in the current Local Plan update.

In early 2022, we ran a number of workshops with the Centre for Sustainable Energy (CSE) for areas which had been identified as having significant potential for renewable energy installations – these areas were Congresbury, Puxton, Nailsea, Tickenham, Yatton and Kenn. CSE provided an online consultation platform following

these workshops and their final report can be found [here](#).

Throughout the workshops, what came out strongly was the importance of community ownership and of host communities deriving more of a benefit from developments going ahead around them. Communities are more supportive of renewable energy projects which they own, or benefit from financially. These findings are considered in the emerging Local Plan.

In autumn 2021, North Somerset Council took part in the West of England Combined Authority (WECA) Solar Together scheme. Solar Together is a bulk buying scheme which allows residents to purchase rooftop solar PV installations at a reduced rate.

In North Somerset, 292 solar PV installations took place, including 173 which included battery storage, and an additional 53 batteries were installed in other homes.

It is estimated that these installations will lead to savings of over 300 tonnes CO<sub>2</sub>e per year in North Somerset. WECA and the Unitary Authorities are currently reviewing feedback received from residents and other performance indicators to decide whether to repeat the scheme in future rounds.

## What still needs to happen?

North Somerset will run another scheme in the future to support residents to install renewable energy on their properties. We are currently assessing whether repeating the Solar Together scheme is the most suitable option.

We are using the recommendations from the renewable energy assessment and the community workshops to support Local Plan updates.

- The draft Local Plan will provide an opportunity for preferred locations to be identified for renewable installations, further work will be required to identify these locations.
- The policy does provide support in principle for renewable technologies and projects. We have never had a policy for renewable technologies before, and this will provide opportunities for future large scale renewable energy generation.

The net zero construction policy proposes the generation of renewable energy at building-scale to match the on-site energy demand (measured in kWh per annum). This will apply to both new residential and non-residential buildings. For developments which demonstrate that the above is not viable (for example in high



## North Somerset Council Climate Emergency Action Plan

rise apartments with a smaller roof space), these developments will be required to pay into a Renewable Energy Offset Fund.

A report by CSE for the West of England Combined Authority, recommends that a council-run scheme is set up to facilitate free domestic solar PV installations for lower-income households. These recommendations could be taken forward through planning policy which would lead to additional renewable energy generation in North Somerset.

To increase the amount of renewable generation in North Somerset, we will take the following action. Full details can be found in the [Climate Emergency Action Plan Dashboard](#).

### Finalise and adopt the Local Plan to 2038 with renewable energy as a high priority focus

- Explore the development of a strategy which discourages investment in fossil fuels and promotes renewable energy generation

### Support residents and businesses to reduce energy consumption and increase renewable energy purchase and generation

- Encourage our partners and stakeholders to procure electricity supply from 100% renewably generated sources
- Encourage our residents to consider 100% renewable energy and support access to grant funding where possible



## 6 – Resource and waste

### Stages



The Department for Environment, Food, and Rural Affairs (DEFRA) waste hierarchy, designed to reduce waste with minimal environmental impact

### Key information

Waste management makes up only 3% of the area’s greenhouse gas emissions. However, moving away from a throwaway culture by using the waste hierarchy means that we can reduce emissions embedded within our goods and other environmental impacts of a linear economy.

We want to change the way we all think about waste, as it is a resource to be utilised and value recovered. We will lead our communities to inspire sustainable actions and provide an open, fair, and green service. We will be a leading authority in minimising waste and tackling the climate emergency.

The new Waste and Recycling Strategy is focused on working with residents, local community groups, businesses and town and parish councils to contribute towards North Somerset’s aim to be carbon neutral by 2030; as well as changing the way we operate our waste services.

In 2020-21 we had a recycling rate of 60.4%. This placed us 7th out of 341 English local authorities in the overall recycling performance league table. We are the best performing authority in the South West and second highest unitary authority in England.

### Co-benefits

- **Equity and social cohesion** – reuse schemes bring communities together and provide goods at lower cost
- **Economic opportunities** – reuse and circular economy can bring new jobs and skills to the area
- **Wider environmental benefits** – reduced landfill means fewer toxins leaching into soils. A reduction in litter and plastic pollution can improve the appearance of our area and reduce marine pollution

### What are we doing now?

All kerbside collected food waste in North Somerset is taken to an anaerobic digestion plant. This means that rather than going to landfill – where food waste produces methane, which is a greenhouse gas 25 times more powerful than carbon dioxide – the anaerobic digester produces renewable electricity. However, 27% of our black bin waste is still food waste.

To promote the waste hierarchy, we will aim to encourage residents to compost their





garden waste either individually or as a community, and use their own compost on their garden, creating a circular economy within a household. Composting at home for just one year can save greenhouse gases equivalent to all the carbon dioxide your kettle produces annually. It therefore has the potential to reduce our carbon footprint in the recycling and waste sector significantly and contribute towards a net zero carbon local authority.

By encouraging residents to compost instead of signing up for the council's chargeable collection service, this should reduce the number of properties to collect from and allow the number of collection routes to be reduced. This will reduce the number of vehicles on the road and reduce carbon emissions associated with transport. We are encouraging composting through free online webinars and workshops and by training a number of composting champions.

## What still needs to happen?

We want to encourage waste minimisation and reuse, before recycling and other resource recovery from waste. By following the waste hierarchy, we aim to have a minimal amount of residual waste being disposed of in landfill and will work towards zero waste being sent to landfill.

- a reduction in residual waste of 15% the level of 2019-20 by 2030;
- a recycling rate of 70% by 2030;
- divert all non-recyclable, kerbside collected household waste away from landfill by end of 2022;
- review and update recycling facilities at all flat blocks;
- expand the commercial waste service;
- progress towards a circular economy where waste is treated as a valuable resource rather than disposed of.

For full information relating to progress on Resource and Waste in North Somerset Council please refer to our [Recycling and Waste Strategy](#).

To reduce emissions associated with waste generated in North Somerset, we will take the following action. Full details can be found in the [Climate Emergency Action Plan Dashboard](#).

### Reduce the amount of residual waste collected at kerbside

- Promote and provide advice on how residents reduce their waste and support plastic free community groups
- Promote reusable nappies through the North Somerset Nappy Scheme
- Promote alternatives to single-use items
- Encourage and promote re-use of unwanted items through new and existing networks, workshops, community groups and charities

### Divert recycling from household black bins

- Communicate information and advice to residents to help reduce food waste in line with national campaigns such as Love Food Hate Waste
- Improve recycling facilities for flats
- Promote composting through offering discounted compost bins, free online webinars and workshops and community composting sites

### Improve recycling centre facilities

- Divert waste for re-use via a re-use shop



## 7 – Adaptation and resilience

### Key information

Climate adaptation is the process of becoming resilient to current and future climate change impacts.

North Somerset can expect to experience more regular flooding, higher temperatures and more regular instances of extreme weather over the coming years. We need to ensure that our climate emergency response is not just about reducing emissions but also about preparing our businesses and communities to be more resilient to a changing climate.

North Somerset's existing Climate Change Adaptation Plan was prepared in 2011 and is in the process of being updated using the Local Partnerships Climate Adaptation Toolkit<sup>1</sup>.

For new buildings, the National Planning Policy Framework (NPPF) states that the planning system should help minimise vulnerability to climate change, and plans should take a proactive approach to mitigating and adapting to climate change, such as avoiding developing areas at risk of flooding<sup>2</sup>.

<sup>1</sup> Climate Adaptation – Local Partnerships

<sup>2</sup> See NPPF, paragraphs 152-154, 159

### Co-benefits

- **Health** – better insulation will keep homes warmer in winter as well as cooler in summer. Better access to green space can improve wellbeing
- **Wider environmental benefits** – nature based solutions such as urban tree planting will improve biodiversity

### What are we doing now?

The council's new local plan will contain policies on climate change adaptation and resilience.

This draft policy requires that all new development to produce a climate change adaptation plan. New policies on flood risk and biodiversity net gain have also been developed. With the Local Plan at the heart of planning policy in the district, these have been very important steps.

The council appointed a Domestic Retrofit Caseworker to focus on encouraging retrofitting in local homes. Whilst mainly designed to increase energy efficiency,



Construction of new sea defences in Weston-super-Mare, 2009.  
Photo provided by North Somerset Council





# North Somerset Council Climate Emergency Action Plan

these measures can also help to keep homes cool in hot weather.

Last year, the council adopted a new Green Infrastructure (GI) Strategy. This ambitious document provides a framework for GI improvements for both people and wildlife in North Somerset. It includes a number of actions around improving our resilience to climate change such as by increasing the tree canopy and working with various partners to manage sea defences and reduce risk of flooding.<sup>3</sup>

## What still needs to happen?

The UK 2022 Climate Change Risk Assessment (CCRA3) has identified a number of areas at risk from the effects of climate change. In response to this, the council is developing a new climate change adaptation plan, with input from key service areas in the council.

This builds on the previous plan adopted in 2011<sup>4</sup>. A series of workshops will identify the risks and how to adapt to them, which will then form the basis of the new plan. This could be expanded upon to include wider external stakeholders in the region.

The council is working with neighbouring authorities to explore opportunities to

target adaptation in those areas which will be most vulnerable to high temperatures.

To adapt to climate change and become more resilient, we will take the following action. Full details can be found in the **Climate Emergency Action Plan Dashboard**.

### Ensure a resilient infrastructure in North Somerset including retrofitting our built environment where necessary

- Update Climate Change Adaptation Plan
- Reduce health impacts of climate change

### Deliver actions in the Green Infrastructure Strategy which support climate change adaptation

- Ensure that work around our flood defences considers climate change and any local and regional effects



by Maisie (11)  
"Picture This" winner

<sup>3</sup> Including the **West of England GI Strategy**  
<sup>4</sup> **Building resilience to extreme weather and climate change (2011)**



## 8 – Replenish our carbon stores



An NSC officer at a community tree planting event.  
Photo provided by North Somerset Council

### Key information

Carbon is stored in the atmosphere, living organisms, oceans, soil and rocks of the Earth. Carbon sequestration refers to removing carbon from the atmosphere and putting it into one of the other carbon stores.

There are nature-based carbon removals such as tree-planting and peatland restoration, and there are engineered carbon removals such as using wood in construction, Bioenergy with Carbon Capture and Storage (BECCS) and Direct Air Capture of CO<sub>2</sub> and Storage (DACCS).

Achieving net zero is expected to require carbon capture and removal. However, it is an option which cannot be solely relied on, particularly in the short term, so we must continue to prioritise reducing emissions while taking opportunities for sequestration where possible.

### Co-benefits

- **Wider environmental benefits** – nature-based carbon removals will also increase biodiversity
- **Health** – better access to green space can improve wellbeing
- **Resilience and adaptation** – nature-based carbon removals can reduce flood risk and reduce temperatures

### What are we doing now?

The council's **Green Infrastructure Strategy** includes a number of actions around natural carbon capture and storage. It supports and helps deliver the requirements of both national and local policy and strategies.

An example of this is the success of recent rewilding projects, with 40 hectares of tall grass, and 25,982 trees planted since 2020.

We are actively looking for local opportunities to sequester carbon in relation to some of our major projects.

## What still needs to happen?

From late-2023 all developments will need to demonstrate at least 10% Biodiversity Net Gain. There is also potential for some of the council's land to generate income through providing 'biodiversity net gain units' (habitat banking) where offsetting of biodiversity loss from new development sites is required.

There is potential for local nature parks to provide strategic mitigation for bats as well as for the restoration of carbon sequestering habitats such as peat and salt marsh.

Enclosed farmland makes up 68% of all land in North Somerset. We will engage and support the farming community to improve green infrastructure on farms, which will enable significant improvements to green infrastructure in North Somerset and will also reduce the carbon intensity of agriculture.

To replenish our carbon stores, we will take the following action. Full details can be found in the [Climate Emergency Action Plan Dashboard](#).

### Deliver actions in the Green Infrastructure Strategy which support carbon sequestration

- Complete objectives to plant 50,000 trees and introduce tall grass manage to 40 hectares of open space
- Create a management plan for ongoing maintenance
- Identify more areas of council land for re-wilding/management for biodiversity and manage 30% land for biodiversity by 2030 (in accordance with the government commitment)
- Encourage and support our residents to create wildflower gardens through schemes such as the 'Blue Heart'



## Our Partners

Tackling the climate emergency successfully will take all of us working together. As such, we collaborate with a range of partner organisations to help meet our net zero 2030 commitments in North Somerset and deliver our actions and priorities. A number of these organisations are listed here and we thank them for their advice, help, and hard work.

### Becoming a net zero carbon council

- North Somerset Partnership members
- North Somerset Together
- West of England Combined Authority
- Other West of England Authorities
- South West Net Zero Hub

### Decarbonising transport

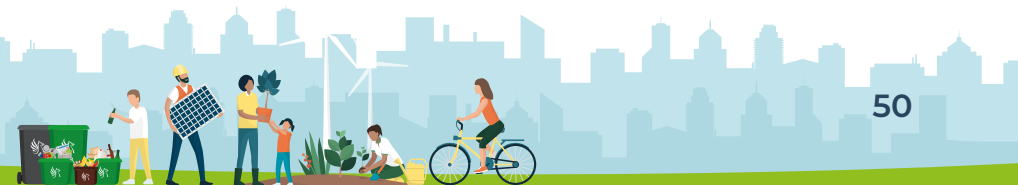
- Department for Transport
- Active Travel England
- First Bus
- Stagecoach
- Sustrans
- West of England Combined Authority

### Decarbonising the built environment

- Centre for Sustainable Energy (CSE – including WHAM and Future Proof)
- West of England Combined Authority
- Other West of England Authorities
- South West Net Zero Hub
- Alliance Homes (and other housing associations)
- Weston College

### Developing low carbon business and skills

- West of England Combined Authority
- South West Net Zero Hub
- North Somerset Enterprise Agency (NSEA)





## Enabling renewable energy generation

- West of England Combined Authority
- South West Energy Hub
- Low Carbon Gordano
- Burnham and Weston Energy CIC
- CSE
- Town and parish councils

## Making best use of resources and waste

- North Somerset Environment Company
- West of England Waste Partnership
- West of England Combined Authority
- Local Government Association
- Environment Agency
- DEFRA
- WRAP
- Recycle Now
- South West Waste Recycling Forum
- Plastic Free Communities

## Promoting adaptation and resilience

- North Somerset Partnership members
- Environment Agency
- Food Standards Agency
- Bristol and Wessex Water
- Natural England
- UKHSA
- DEFRA
- Forestry Commission
- Marine Management Organisation

## Replenishing our carbon stores

- West of England Combined Authority
- Other West of England LAs
- Natural England
- Forestry Commission
- Farming and Wildlife Advisory Group
- Bristol Avon Catchment Partnership
- Forest of Avon Trust
- West of England Nature Partnership
- Mendip AONB Unit
- Avon Wildlife Trust
- Woodland Trust



# Glossary

Term	Definition
Adaptation	Climate change adaptation is the process of adjusting to current or expected effects of climate change.
Biodiversity	The variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable.
Carbon Baseline	The year against which target decreases in emissions are measured.
Climate Change	A pattern of change affecting global or regional climate, for example average temperature and rainfall, or an alteration in frequency of extreme weather conditions. This variation may be caused by both natural processes and human activity. Global warming is one aspect of climate change.
Carbon dioxide (CO <sub>2</sub> )	Carbon dioxide is a gas in the Earth's atmosphere. It occurs naturally and is also a by-product of human activities such as burning fossil fuels. It is the principal greenhouse gas produced by human activity.

Term	Definition
Carbon Budget	A carbon budget places a restriction on the total amount of greenhouse gases over a specific time period. Budgets tend to be in line with internationally agreed levels to meet temperature targets.
Carbon dioxide equivalent (CO <sub>2</sub> e)	Seven greenhouse gases are limited by the Kyoto Protocol and each has a different global warming potential. The overall warming effect of this cocktail of gases is often expressed in terms of carbon dioxide equivalent -the amount of CO <sub>2</sub> that would cause the same amount of warming.
Carbon footprint	The amount of carbon emitted by an individual, organisation, geographical area or during the manufacture of a product in a given period of time.
Carbon neutral	Carbon neutrality is a state of net-zero carbon dioxide emissions. This can be achieved by balancing emissions of carbon dioxide with its removal (often through carbon offsetting) or by eliminating emissions from society (the transition to the “post-carbon economy”).



# North Somerset Council Climate Emergency Action Plan

Term	Definition
Carbon offsetting	A way of compensating for emissions of CO2 by participating in, or funding, efforts to take CO2 out of the atmosphere. Offsetting often involves paying another party, somewhere else, to save emissions equivalent to those produced by your activity.
Carbon sequestration	The process of storing carbon dioxide. This can happen naturally, as growing trees and plants turn CO2 into biomass (wood, leaves, and so on). It can also refer to the capture and storage of CO2 produced by industry.
Climate Change Act (2008)	The Act makes it the duty of the Secretary of State to ensure that the net UK carbon account for all Kyoto greenhouse gases for the year 2050 is at least 100% lower than the 1990 baseline, toward avoiding dangerous climate change. An independent Committee on Climate Change was created under the Act to provide advice to UK Government on these targets and related policies.
Climate Emergency	A situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.

Term	Definition
Climate Emergency Declaration	The recognition of the urgency of the Climate Emergency by organisations, businesses or government at any level, often resulting in setting a target date to become carbon neutral.
The Committee on Climate Change (CCC)	An independent, statutory body established under the Climate Change Act 2008 whose purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change.
Decarbonise	To reduce the amount of gaseous carbon compounds released in or as a result of (an environment or process).
Fossil fuels	Natural resources, such as coal, oil and natural gas, containing hydrocarbons. These fuels are formed in the Earth over millions of years and produce carbon dioxide when burnt.





# North Somerset Council Climate Emergency Action Plan

Term	Definition
Global Warming Potential (GWP)	The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 tonne of a gas will absorb over a given period of time, relative to the emissions of 1 tonne of carbon dioxide (CO <sub>2</sub> ). The larger the GWP, the more that a given gas warms the Earth compared to CO <sub>2</sub> over that time period. The time period usually used for GWPs is 100 years.
Green infrastructure	Green infrastructure is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of benefits (typically called ecosystem services) such as water purification, air quality, biodiversity, space for recreation and climate mitigation and adaptation.
Greenhouse gases (GHGs)	A greenhouse gas (GHG) is a gas that absorbs and emits radiant energy within the thermal infrared range, causing the greenhouse effect.

Term	Definition
The Intergovernmental Panel on Climate Change (IPCC)	A scientific body established by the United Nations Environment Programme and the World Meteorological Organization. It reviews and assesses the most recent scientific, technical, and socio-economic work relevant to climate change, but does not carry out its own research. The IPCC was honoured with the 2007 Nobel Peace Prize.
Land Use, Land-Use Change, and Forestry (LULUCF)	Land use, land-use change, and forestry (LULUCF), also referred to as Forestry and other land use (FOLU), is defined by the United Nations Climate Change Secretariat as a “greenhouse gas inventory sector that covers emissions and removals of greenhouse gases resulting from direct human-induced land use such as settlements and commercial uses, land-use change, and forestry activities.”
LED (Light Emitting Diode)	LEDs have become the most efficient source of lighting available, using up to 90% less energy than incandescent lighting and 60% less than fluorescent lighting.
Mitigation	Action that will reduce man-made climate change. This includes action to reduce greenhouse gas emissions or absorb greenhouse gases from the atmosphere.



# North Somerset Council Climate Emergency Action Plan

Term	Definition
Net zero	The term net zero means achieving a balance between the greenhouse gases emitted into the atmosphere, and the carbon removed from it. Unlike carbon neutrality, this cannot be achieved using offsetting.
Paris Agreement (2015)	The Agreement's central aim is to strengthen the global response to the threat of climate change by 21 countries agreeing to keep the global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.
Per-capita emissions	The total amount of greenhouse gas emitted by a country per unit of population.
The United Nations Framework Convention on Climate Change (UNFCCC)	One of a series of international agreements on global environmental issues adopted at the 1992 Earth Summit in Rio de Janeiro. The UNFCCC aims to prevent "dangerous" human interference with the climate system. It entered into force on 21 March 1994 and has been ratified by 192 countries.



This publication is available in large print, Braille or audio formats on request.

Help is also available for people who require council information in languages other than English.

For all enquiries please contact [climate.emergency@n-somerset.gov.uk](mailto:climate.emergency@n-somerset.gov.uk)

