

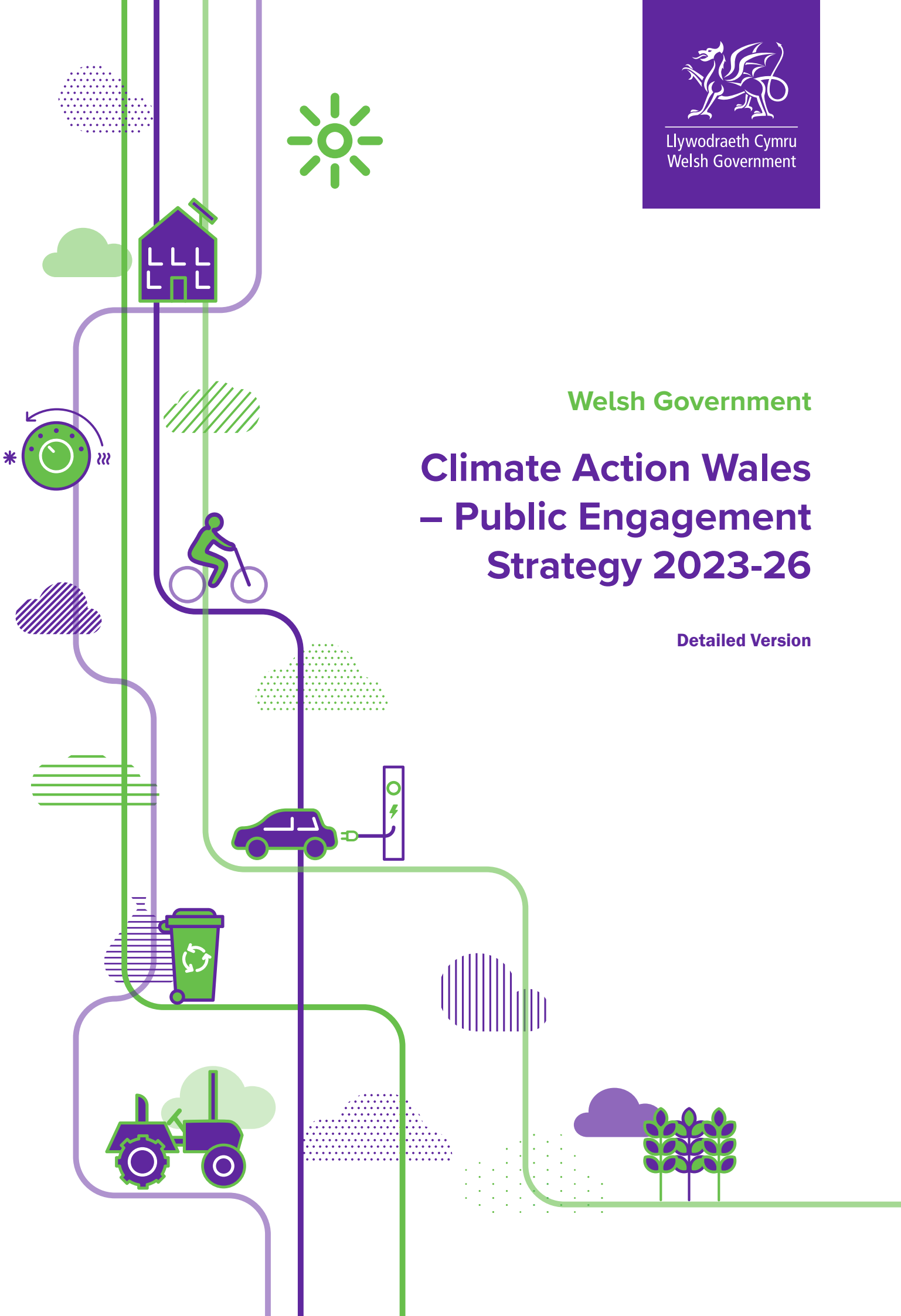


Llywodraeth Cymru  
Welsh Government

Welsh Government

# Climate Action Wales – Public Engagement Strategy 2023-26

Detailed Version



# Contents

## CHAPTER 1 – Setting the Scene

Ministerial foreword	2
Introduction	3
Purpose & scope	6

## CHAPTER 2 – Strategy

Our Vision	9
Guiding principles	10
Aims of the Strategy	13
How the aims will be delivered (Green choices framework)	14

## CHAPTER 3 – Delivery approach & conclusions

Delivery partners	26
Theory of success	30
Conclusions & take-aways	31

## Annexes

Annex 1 – Welsh Government summary of Climate Change Committee's balanced pathway at a Welsh level	33
Annex 2 – Glossary of terms	35
Annex 3 – Bibliography	38

# CHAPTER 1 – Setting the Scene

## Ministerial foreword

Climate Action Wales is part of our commitment to place the climate and nature emergencies at the heart of everything we do.

Climate change is not a future problem. We are already experiencing the impacts in our communities here in Wales, and across the globe.

We cannot consume endlessly and rely on technology to provide the solutions. We need to redesign the energy systems and transport infrastructure which currently drive our way of living. We must consume less, minimise waste, reuse and repair more, and safeguard nature and the environment. These actions will bring multiple benefits to the way in which we live our lives.

The focus must continue to be on action by Government, the public sector, and businesses. But we as individuals also have a vital part to play. Every single person in Wales can be part of the solution. We will support the people of Wales by making green choices easier, more convenient and more affordable.

The path towards a greener way of living must be driven by the guiding principle of leaving no-one behind. My priority is to ensure that this transition avoids creating or exacerbating inequalities in our society – and that we use this as an opportunity to reduce or remove them.

We will support those who need it most. We will continue to deepen our understanding of the barriers people are facing. We will continue to involve people in decisions we make, and to shape this Strategy as it unfolds.

By working together, we can deliver a stronger, fairer, greener Wales for everyone.

**Julie James MS**

Minister for Climate Change



## Introduction

This Strategy sets out a framework for the Welsh Government and its partners to work together to support and engage the people and communities of Wales in action on the climate and nature emergencies. In presenting

the evidence, it conveys the importance of ensuring that fairness is embedded in the approach for the people of Wales and future generations.

### Three versions of this Strategy will be published

(and which will shortly be supported by alternate versions e.g. for the visually impaired):

**This detailed version of the Strategy, including supporting background information and further context.**

---

**A short (main) version, for a broader range of stakeholder audiences.**

---

**A short film setting the context (which will be made available soon on the new [climateaction.gov.wales](https://climateaction.gov.wales) website).**

---

### It's time to act

The evidence is clear. Climate change is the biggest threat facing humanity. We need to act now.

Some changes in the climate are natural. Human activity, however, is speeding up the changes. We are already feeling the effects. Climate change is impacting people globally in a myriad of ways: from increasingly frequent extreme heatwaves and storms to disruption of food systems and a rise in disease.

The climate emergency is also threatening the communities in which we live here in Wales, through impacts like water shortages, flooding, heatwaves and changes to air quality. Our flood defences, our natural and historic environments, our homes, the businesses which drive our economy – they are all at risk.

The [Intergovernmental Panel on Climate Change \(IPCC\)\(2023\)](#) states that to avert catastrophic health impacts and prevent millions of climate change-related deaths,

the world must limit temperature rise to 1.5 °C. But its [latest study](#) concludes that there is very little chance of keeping the world from warming by more than 1.5 °C because of human activities. This makes the need to reduce the amount of carbon emissions we produce even more urgent, and the need to adapt our infrastructure and society to the new reality and risks of climate impacts.

The world is simultaneously facing a nature emergency, as human behaviour is driving nature's decline. These two emergencies are inextricably linked: one cannot be solved without the other.

### A globally responsible Wales

In Wales we are fully committed to playing our part in supporting global efforts to tackle the climate and nature emergencies. Until recent decades, developed countries, like ours, have been the source of most carbon emissions. These countries possess the financial and technological resources to lead international efforts.

But, according to the IPCC, the most developed nations are not doing as much as they should, considering their means and the scope of their responsibility. Welsh Ministers agree that global action has been insufficient and recognise that the challenge of climate change requires everyone to work together across geographical and sectoral boundaries.

The Well-being of Future Generations (Wales) Act also commits to Wales being a globally responsible nation, from supporting people and communities most vulnerable to climate change worldwide, to considering the impact of our actions in Wales and how they impact globally.

As the world has become more interconnected, over-consumption by the richest corners of the world is damaging the poorest: higher carbon emissions, deforestation and impact on land, increased levels of pollution, and global water and food shortages.

### **Wales' duty to act**

In Wales we are legally committed (through the Environment (Wales) Act 2016) to reduce our carbon emissions to net zero by 2050. The Welsh Government establishes 10-yearly targets and 5-yearly carbon budgets setting out our pathway to net zero.

We must make early progress, because the longer action takes, the more expensive and difficult the changes ahead are likely to become. Our current plan, Net Zero Wales, calls on people, communities, voluntary organisations, businesses and public sector bodies in Wales to embed the climate emergency in our day to day activities. It also emphasises the need for fairness around the way in which change is delivered.

The Climate Change Committee Report, May 2019 (page 155) states that the majority (~62%) of emission reductions will require some form of societal and behavioral change. This includes the adoption of low-carbon technologies and changes to the way we live our lives.

We also need to deepen our relationship with nature and do all we can to tackle biodiversity loss. The Welsh Government has set a goal to protect at least 30% of the land and 30% of the sea in Wales by 2030. This is supported by Biodiversity Deep Dive Recommendations which detail the need to deepen our relationship with nature, improve education and awareness around the nature emergency, and the actions we can all take to tackle biodiversity loss.

The Welsh Government is committed to moving towards a circular economy, to support both the regeneration of nature and reduction of carbon emissions. The Beyond Recycling Strategy sets out how this will happen, keeping resources in use for as long as possible and avoiding waste – ensuring re-use, repair and recycling are the norm. More sustainable consumption benefits nature by reducing the amount of raw materials we use.

However, this cannot be achieved in a vacuum. Delivery must happen in parallel with UK ambitions for mutual progress. The Welsh Government has devolved powers (mostly or partially) to address emissions in some sectors (such as agriculture, land use, waste management, transport and residential buildings), but not in others (such as electricity and fuel supply, manufacturing and construction, aviation and shipping). These powers are mostly reserved to the UK. Continued UK Government support will be essential in unlocking some of the key barriers to climate and nature actions.

## Social transformation

Other solutions to the climate and nature emergencies undoubtedly rely on action by government and businesses. Already there are many examples of action by the public sector and progress in decarbonising our heavy industries, energy generation and transport infrastructure.

But ultimately Welsh society needs to transform so that green choices are a normal part of everyday life and there is pride in making our country more resilient to climate change for our children and future generations.

The commitment from Wales to tackle the climate and nature emergencies is backed by the people of Wales. The [National Survey \(2022\)](#) finds that 76% of the population of Wales are 'very' or 'fairly' concerned about climate change, while 94% think that the general public have 'some' or 'a lot' of responsibility to tackle climate change.

We can all play a part – individual actions all add up - from the number of items we buy, to the way in which we reuse and dispose of them, to our consumption of energy and food.

And we can all enjoy the benefits of every green choice we make and by keeping things we use every day in use for longer: from improvements to our finances, health and wellbeing; better housing and lower bills; a more resilient energy system; improved air and water quality; green education, skills and employment opportunities; greater resilience to climate change within our homes and communities; protection of our land and marine ecosystems, and feeling part of a team or community.

But the actions we all take at a household level have so far been comparatively simple and the impact on our lives has been minimal. Not all steps ahead will be so easy.

For instance, many of the more difficult choices, such as investing in green home energy solutions are too costly for many, or are often perceived to be too difficult and currently not the easiest option to take. But others could save money, such as increasing the trend for a market in second hand every day items, growing our own food, making clothes and other items used around the home cheaper to buy.

The Welsh Government has a key role to play in minimising the burden of action on the people of Wales, and is committed to making green choices easier, more convenient and more affordable.

## An opportunity for positive change

Although the pathway ahead presents a major challenge, it also brings opportunity for positive change. It has the potential to make a significant contribution towards the [seven connected well-being goals for Wales](#).

The climate emergency affects us all, but it doesn't affect us equally. If we don't engage in climate action, there is a risk the inequality gap will grow. We must make sure that the any steps we take are fair to everyone, and do not create further inequality.

For example, not everyone across the Welsh population creates carbon emissions equally. Those in society who have more tend to produce higher carbon footprints. Meanwhile, the poorer and more vulnerable – who typically produce less - are already suffering disproportionately from climate-related health conditions.

Nor does everyone have the same level of resources or opportunity to make green home energy, transport, food and consumption choices.

The Welsh Government committed in Net Zero Wales to ensuring the transition is carefully managed and carried out in a way that avoids creating or exacerbating inequalities – and furthermore, to use the transition to reduce or remove them.

The evidence base is being developed to further improve understanding of how the transition will impact the people of Wales.

A Call for Evidence around a Just Transition was recently completed, the responses from which will be used to inform a new Just Transition Framework. This Framework will enable a strategic approach to the delivery of government support structures which are fair, inclusive, and built on a vision that is driven by improved wellbeing and the guiding principle of ‘leaving no-one behind’.

## Purpose & scope

### Purpose

The purpose of this Strategy is to drive Wales’ people-centred approach and encourage active participation of the people of Wales in decision-making around the delivery of a national public engagement programme. Achieving net zero is a social as well as a technical challenge, so embedding this approach is vital. It sets out a framework and guiding principles around how the Welsh Government (through important collaboration with others) will:

- › Engage people in decision-making (including policy-making) about how to tackle climate change.
- › Engage people in action necessary to tackle climate change.

These two aspects of public engagement are interlinked. If people are more engaged in decision-making, people are more likely to engage in action. It can also help to shape understanding on why changes are happening and to build trust.

The focus is on actions that the Welsh Government is leading on or directly funding, and the levers at its disposal. The UK Government will also be called upon to support us all to make green choices. This Strategy recognises an approach in which government action is just one component, and that coordinated action is needed across the public sector and through a broader network of Team Wales delivery partners.

### Scope

The main scope of this Strategy (based on the programme methodology led by the Behavioural Insights Team (BIT)) is on on 4 Green Choices themes, covering the main areas of influence associated with cutting our carbon emissions. While those with greatest resources will have greatest choice, all 4 Green Choice themes have elements to assist the less well-off in playing their part and realising personal benefit. The Welsh Government will focus on making these choices easier, more affordable and more convenient:



### Green Home Energy Choices

- › Reducing energy consumption.
- › Home upgrade choices.

### Green Transport Choices

- › Driving less. Taking up active travel and public transport.
- › Electric vehicle adoption.

### Green Food Choices

- › Reducing food waste.
- › Healthier eating and sustainable food choices.

### Green Consumption Choices

- › Shopping sustainably.
- › Using less, reusing, repairing and recycling.

ANNEX 1 highlights the Welsh Government's summary of the Climate Change Committee's balanced pathway to Net Zero at a Welsh level and the changes that the CCC pathway details will be required under each of the emission sectors. This presents an example pathway for Wales and provides a long term indication of some of the changes that may be required by households. The Welsh Government's current pathway up to 2025 is presented in [Net Zero Wales](#) and is sufficient for the purposes of meeting our Carbon Budget 2 targets, but acknowledges that further policy development at a UK and Wales level will be required to meet our Carbon Budget 3 targets.

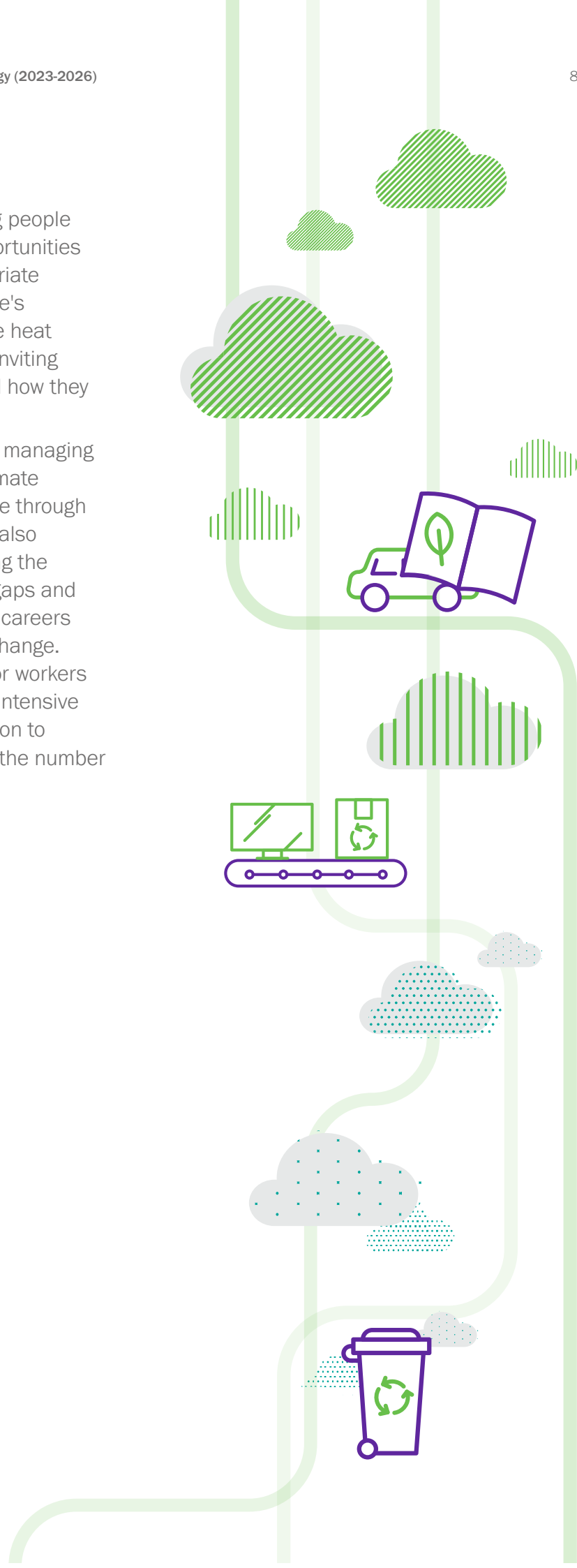
### Related actions

The scope of this Strategy also extends to important actions beyond climate mitigation but also directly or indirectly linked to tackling the climate and nature emergencies:

- › **Climate adaptation** – protecting our health, homes and communities from the impacts of climate change through flooding and increased exposure to heat.
- › **Nature emergency** – tackling the inter-related challenges presented by the climate and nature emergencies through actions such as managing our gardens and urban and rural green spaces to support wildlife, growing vegetables and supporting community garden projects, using peat-free compost, planting trees, conserving water, using less plastic, recycling, litter picking, changing travel and eating habits, and reducing food waste etc.
- › **Circular economy** – repairing and reusing items to ensure we keep resources in circulation for as long as possible to support the regeneration of nature and reduction of carbon emissions e.g. encouraging the establishment of repair cafes nationwide and raising awareness of the need to patronise the cafes among communities.
- › **Environmental protection** – managing air, land and water quality to safeguard our health through actions such as servicing our vehicles regularly, driving more slowly to save fuel and reduce emissions, practicing green travel behaviour, saving energy, maintaining wood stoves or fireplaces and burning dry rather than humid or coated wood, using air purifiers, managing litter and plastic pollution, consuming less and choosing sustainable products, eating sustainably sourced foods, growing vegetables, planting trees, using less water and disposing of household chemicals and medicines carefully.



- › **Noise management** – engaging people around the challenges and opportunities associated with seeking appropriate soundscapes, listening to people's concerns (e.g. around air source heat pumps and wind turbines) and inviting views on potential solutions and how they might help to deliver them.
- › **Education, skills and careers** – managing uncertainty and planning for climate adaptation further into the future through innovation and technology, and also education at all ages, addressing the challenges around green skills gaps and shortages and promoting green careers as a key enabler for delivering change. Also ensuring a just transition for workers currently employed in emission intensive industries and using the transition to reduce gender inequalities and the number of women in leadership roles.



## CHAPTER 2 – Strategy

### Our Vision:

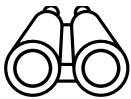
Our vision is to ensure a fairer, low-carbon and climate-resilient society. We will take responsibility for climate action, creating lasting cultural change towards a more sustainable, equal and inclusive society. Together we can make a positive contribution to global and local well-being.

---



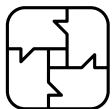
**LLESIANT  
CENEDLAETHAU'R DYFODOL  
WELL-BEING OF  
FUTURE GENERATIONS**

### Guiding principles (Wellbeing of Future Generations Act 5 ways of working)



**Long-term** – Balance the need for creating early momentum where we can and focus on addressing more of the long-term challenges where we can't.

---



**Integration** – Adopt a whole systems approach to problem-solving and delivery of mutually beneficial solutions.

---



**Involvement** – Actively listen to and involve people in shaping solutions that will affect them.

---



**Collaboration** – Ensure openness and transparency over the way in which the programme is delivered.

---



**Prevention** – Prevent problems occurring or getting worse by preparing people for the changes ahead, ensuring fairness is embedded in the approach and building greater resilience to climate change within our communities.

## Guiding principles

The principles behind this Strategy are designed around the 'Well-being of Future Generations Act Sustainable Development Principle and 5 ways of working which aim to help Wales work together better:

### **1. Long-term – Balance the need for creating early momentum where we can and focus on addressing more of the long-term challenges where we can't.**

To achieve our decarbonisation and adaptation targets in Wales, urgent action is needed by the people of Wales. The longer the action takes, the more expensive and difficult the changes ahead are likely to become.

However, there are barriers that prevent many of us from acting on climate change: from practical, financial and infrastructure barriers, to capacity, capability and motivation barriers. So the difficulties people are facing must be matched by Government understanding of the lived reality. Systems, support and education need to be provided to overcome them. This will require long-term investment from the Welsh Government in policy, infrastructure and capability solutions (particularly for households in greatest need of support).

It will also require action from UK Government in areas where powers are mostly reserved, and innovative and tailored place-based solutions from local authorities to unlock different challenges faced within the regions and communities of Wales.

### **2. Integration – Adopt a whole systems approach to problem-solving and delivery of mutually beneficial solutions.**

The Welsh Government's current Programme for Government underlines a number of important areas requiring the highest level of coordination across the whole of government, including the need to "*embed our response to the climate and nature emergency in everything we do*". A successful transition to a greener way of living will depend on the Welsh Government's ability to maximise connections between policies designed to support us all in cutting carbon emissions and realise other important co-benefits. For example:

**Just transition** – The Welsh Government must deliver support structures which are fair, inclusive, and built on a vision that is driven by improved wellbeing and the guiding principle of 'leaving no-one behind'.

**Nature emergency** – Human behaviour is driving nature's decline. The climate and nature emergencies are inextricably linked: one cannot be solved without the other. The biodiversity challenge in Wales also involves addressing the environmental and social impact we are having beyond our own borders (our consumption habits are largely hidden from us, often because the raw materials in them are extracted in other parts of the world).

**Health** – Climate change presents one of the greatest threats to public health so climate policies will need to be designed to have the maximum possible impact to address health inequalities and areas where benefits to public health can be expanded.

**Clean air** – Some of the main sources of air pollution also contribute to climate change e.g. vehicles and buildings, so policies designed to encourage actions linked to reducing carbon emissions can also address emissions of air pollutants.

**Water management** – Saving water and helping people change the way in which water is used can help to reduce carbon emissions and bring potential money and energy savings within our homes.

**Climate risk** – Significant and irreversible changes to our climate and weather bring risks and impacts to our health, homes and communities in which we all live. There are potential benefits and trade-offs to be considered around how we manage our land to ensure we protect new green infrastructure from the impacts of extreme weather.

---

### **3. Involvement – Actively listen to and involve people in shaping solutions that will affect them.**

In responding to the threat of climate change, government action is just one component of the response. The scale of the changes ahead means that the public engagement programme cannot be achieved without widespread endorsement and support from all areas of society.

The Welsh Government has already committed to ensuring the people of Wales have a meaningful opportunity to contribute to delivering and strengthening the actions set out in [Net Zero Wales](#). This included the consultation on this Strategy, the responses to

which are summarised in a published report which can be viewed at [Summary of research into the ‘asks’ of the Welsh public detailed in the Net Zero Wales plan.](#)

Throughout this Strategy, references are made to the importance of involving people in decision-making around the design of government policies aimed at supporting people to make green choices. A two-way dialogue is vital to the success of future policy solutions, building understanding around why changes are happening, engendering trust in Government and creating a stronger basis for us all to act. Involvement at a community level is also important: community-led action can be a powerful force for change and more responsive to conditions on the ground and flexible as conditions change.

Respondents to the consultation on this Strategy called for meaningful, dynamic and on-going opportunities for involvement in how this programme is delivered. This Strategy commits to exploring new mechanisms, channels and relationships for realising the scale of involvement needed in the delivery of this programme. The Welsh Government will work with national, regional and community networks to agree the structures and processes to enable this to happen.

---

### **4. Collaboration – Ensure openness and transparency over the way in which the programme is delivered.**

This Strategy sets out the importance of working together – describing a collaborative, open and transparent Team Wales approach to delivery. The Welsh Government recognises the important role of regional partners in unlocking many of the challenges ahead.

Successful delivery of this programme will rely on organisations at a national and regional level working differently to develop new solutions. This includes the Welsh Government holding more conversations with local authorities and regional partners across Wales to ensure a collaborative approach to delivery.

It is the concerted actions taken by the Welsh Government and Team Wales partners (set out in more detail within the Welsh Government's Stakeholder Engagement Plan: [Climate Change Engagement Approach 2022-2026](#)) that will enable the vision and aims set out in this Strategy to be realised.

---

## 5. Prevention – Prevent problems occurring or getting worse by preparing people for the changes ahead, ensuring fairness is embedded in the approach and building greater resilience to climate change within our communities.

One of the aims of this Strategy is to convey how an equitable and inclusive transition towards a more sustainable way of living will bring benefits to us all and to future generations. The pathway ahead undoubtedly brings challenges, but it also brings a new opportunity to prevent the inequalities in our society getting worse and reverse them, and ensuring fairness is embedded in the transition to a greener way of living.

Fairness and driving social equity (from equality to diversity and inclusion) will be a central focus across all areas of programme delivery. The emphasis of this public engagement programme will be firmly placed on easing the financial burden on our poorest households and ensuring that the transition does not increase their vulnerabilities.



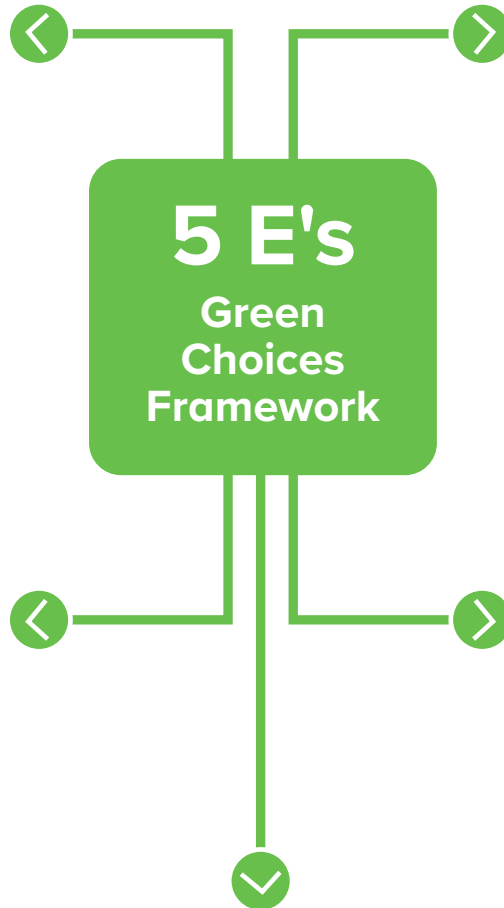
## Aims of the Strategy

- › Convey an equitable and inclusive transition towards a more sustainable way of living, keeping resources in use for as long as possible and reducing waste, resulting in benefits to the people of Wales now all and in the future.
- › Increase people's knowledge on green choices and the co-benefits these will bring, reinforcing action in areas where people are more willing and able to act, and preparing us all for the more impactful changes ahead.
- › Encourage action in related areas such as adapting our homes and communities to the impacts of climate change, tackling the nature emergency, and protecting the quality of the environment in which we live.
- › Support the delivery of actions detailed in the [Net Zero Skills Action Plan](#) to address green skills gaps and shortages and promote green careers as a key enabler for change, ensuring these opportunities are available to all.
- › Convey how together we can make a difference by publicising actions being taken across Wales by the Welsh Government, the broader public sector, businesses and within our communities and by communicating the impact people are having through the adoption of green choices.
- › Build collective trust and acceptance in government policies designed to make green choices easier and more affordable, through transparent engagement mechanisms that involve people in shaping the solutions. This includes harvesting feedback as the Strategy is implemented over time.

## How the aims will be delivered (Green choices framework)

### Exemplify

Lead by example: inspire others to act by exemplifying green behaviours.



### Engage

Get people involved: engage people in policy decision-making about how to tackle climate change.

### Enable

Make it easier: provide people with the support they need to make green choices.

### Encourage

Give the right signals: encourage people to make everyday changes that will help tackle climate change.

### Evaluate

Share the impact of actions: demonstrate meaningful outcomes showing that together we can make a difference.



## 1. Exemplify

### Lead by example: inspire others to act by exemplifying green behaviours.

We need to exemplify action across all corners of Wales, including how the Welsh Government and others are leading by example and acting with openness, honesty and integrity. This will ensure people can visualise how individual actions matter as part of the bigger picture.

The Welsh Government will work with partners to deliver multi-layered communications explaining what action they are taking to demonstrate leadership at every level throughout their own organisations, conveying:

- › The scale and pace of action being taken within the Welsh public sector to realise commitments to radically reduce their own carbon emissions.
- › The important policies and structures being put in place by the Welsh Government to enable people to overcome the barriers to green choices and convey how people are being involved in shaping what these solutions look like.
- › What local authorities and other public service bodies are doing to help people overcome specific barriers at a regional and community level.
- › The critical leadership role that industry and businesses are playing in terms of cutting their own carbon emissions and enabling people to make green choices (from innovation and technology solutions to clearer consumer labelling, more green consumer choices, to new green job opportunities).
- › Inspiring examples of community power and action being taken locally by social enterprises and community groups to cut carbon emissions, live more sustainably and adapt to the impacts of climate change that are already being experienced within our communities, and the local solutions being delivered.
- › Action being taken by schools and education providers to help improve knowledge on climate change and address skills gaps and shortages.
- › Action being taken within the farming industry to move towards more sustainable farming practices.
- › Nature's role within the delivery plan and action already being taken at a national and regional scale to tackle biodiversity loss.
- › Examples of projects being delivered by the creative industries, arts and culture, and historic environment sectors around the importance of learning from lived experiences and in helping to vision a greener, more sustainable way of living.

Exemplifying action is vital in building understanding that we are not being asked to tackle the climate challenge alone. It also shows that the scale of action being undertaken by government, local authorities and businesses matches the seriousness of the issue.

## Actions

The Welsh Government has already gathered over 150 pledges to galvanise action across the public sector, businesses, within schools and communities.

In 2022, the Welsh Government began a new national digital campaign promoting commitments and action on climate change within the public sector, by businesses and across the communities of Wales.

## Commitment

The Welsh Government will continue to encourage and publicise pledges and case studies demonstrating commitments and action being taken across all corners of Wales.

## 2. Engage

### **Get people involved: engage people in policy decision-making about how to tackle climate change.**

The Well-being of Future Generations Act places a legal obligation on public bodies to consider and involve people of all ages and diversity in decision-making.

Throughout this Strategy, references are made to the essential role of the Welsh Government and other organisations in delivering joined-up policy and infrastructure solutions to help overcome many of the barriers people face in making green choices.

But the sheer extent of change necessary to tackle climate change cannot be achieved without opening up the discussion and engaging people in the process. The people of Wales must be provided with ample

opportunity to have their legitimate interests heard and considered; to be agents (and not objects) of change; to feel that policy is fair, justified and likely to be effective.

The Welsh Government has already committed in Net Zero Wales to a two-way dialogue on climate change, particularly with people and communities most likely to be affected by future policy decisions. This ensures fairness around the way in which these changes are implemented. Engaging people in shaping policies and solutions will also provide a stronger basis for people to understand the complexities involved in shaping them, and this greater understanding also increases the likelihood of this leading to changes people make in their own lives.

A high volume of engagement is already taking place across Wales, and there are many examples of good practice. The Welsh Government will build on this good practice and notable learnings on the topic, such as:

- › Careful consideration should be given to the frequency of approaches and methods used to avoid people being overwhelmed, or activity leading to engagement fatigue.
- › People most interested in the subject matter are those most likely to volunteer to be involved or are willing to engage, leading to an imbalance of views being expressed and heard.
- › Engagement is most effective when continuous monitoring mechanisms are used and feedback loops included so that people involved in the process recognition the impact of their contribution and action taken as a result.

- › Positive change is likely to occur through engagement where there is an equal power balance, mutual understanding and respect, and where communities are valued for their knowledge and understanding on local contexts.

The Welsh Government will prioritise conversations with the seldom heard, young people, ethnic minorities, the more vulnerable and older people and marginalised groups to ensure their views are heard and they are fully supported through the transition.

## Actions

The Welsh Government website currently includes [142 published consultations](#) on the environment and climate change.

Among these is the [consultation on this Strategy](#) and a [call for evidence](#) to inform the development of a new Just Transition Framework for Wales.

---

## Commitments

The Welsh Government will undertake a review over the next 12 months to determine the extent to which deliberative public engagement on the climate and nature emergencies is already being undertaken across Wales (and by whom).

The Welsh Government will use the findings from this review to consider solutions for a more joined-up approach to public engagement on the climate and nature emergencies across Wales.

### 3. Enable

#### **Make it easier: provide people with the support they need to make green choices.**

The widespread action needed from everyone in Wales on climate change cannot happen without substantial support to help us all to make green choices. At present many of these choices are too expensive, inconvenient, and unappealing - or simply not the default or norm we are used to. As it stands, Wales' economy and infrastructure are not well designed for those who wish to live sustainably – at least, not without a degree of personal effort or compromise.

Although communications can help to address some of these barriers, on their own they will likely lead only to modest shifts in behaviour. This is why this Strategy highlights a theory of success based on the need to deepen understanding on the main barriers and facilitators to action. This is the basis for developing practical communications, policies, infrastructure and technology solutions that are rooted in the evidence of what will work and be most appealing to people.

#### **Understanding and addressing barriers**

Barriers will need to be understood and addressed quickly and at multiple levels, taking into account people's choices (based on their preferences, knowledge, values and biases), to factors that exert profound influence (such as cost, convenience and social norms) to the systems in place (such as incentives, regulation and infrastructure). Ultimately success will rely on addressing the major cost, convenience and motivational barriers, and making these changes timely.

The sheer extent to which interventions are needed to help people make green choices mean that the Welsh Government plays an important role in coordinating action at all levels to bring together innovation, technology improvements, and a fresh consideration around how incentives, standards, labelling public information, and infrastructure can be used to drive action as quickly as possible.

Beyond the role of the Welsh Government, many solutions also lie at a community level. Different solutions will be needed for different regions of Wales, making a place-based approach essential.

## Actions

The Welsh Government website currently includes 849 published announcements on the environment and climate change. These are just some of the new policies and programmes being developed and delivered to support people in making green choices:

- › A new publicly-owned energy developer
- › The next iteration of the Warm Homes Programme
- › The Roads Review
- › 20mph speed limits
- › A Healthy Weight, Healthy Wales delivery plan
- › Retail sale of peat in horticulture to end
- › A tree for every household
- › Record levels of funding for flood defences
- › New Air Quality Bill
- › Legislation against single-use plastics
- › Funding redistribution of surplus food – FareShare
- › Food waste collected separately by all local authorities in Wales
- › Wales involvement in The Courtauld Commitment 2030
- › Circular Economy Fund
- › Funding Repair Café Wales and Benthylg
- › Introducing a Deposit Return Scheme

---

## Commitment

The Welsh Government will develop an outline timeline for the introduction of government policy levers centred around the 4 Green Choices themes.

## 4. Encourage

### **Give the right signals: encourage people to make everyday changes that will help tackle climate change.**

Communications can be a powerful tool in encouraging people to subscribe to a positive national narrative, understand what government is doing to help us make changes, and feel that these changes are fair, justified and likely to be effective. Communications can also help to address knowledge barriers on climate change and ensure we are more aware of the co-benefits of making green choices - for ourselves, our families, households, communities, and the wider benefits to nature, and to air and water quality.

In 2023 a new national communications programme will begin, the focal point for which will be a national Climate Action Wales campaign and Digital Hub (website). In developing the approach, the following questions were considered:

- › Where can communications make a difference, and how?
- › Which actions should be asked of people?
- › How ready are people to be asked to do X, Y or Z?
- › Which actions are most impactful on reducing emissions?
- › How do attitudes differ by audience segment?
- › How, specifically, should the communications be optimised?
- › What are the specific barriers to action, and what can communications do to address them?

### **Communications recommendations**

The project led by BIT to shape the methodology behind the communications programme drew upon Welsh-specific and UK-level qualitative and quantitative data, models and frameworks to explore the role of communications in encouraging green choices, both directly (i.e. asking people to make greener choices now) and indirectly (i.e. 'warm ups' in readiness for future changes). See: [Summary of research into the 'asks' of the Welsh public detailed in the Net Zero Wales plan](#). The following communications recommendations were made:

- › Reinforce already commonly adopted lower-impact green choices.
- › Use timely moments to shift attention and goodwill towards higher-impact actions in areas where there are limited barriers to action.
- › Promote 'warm-ups' for mid-to-high impact actions where the barriers to action are more notable.
- › Communications is not all about awareness and persuasion and can potentially (partially) address a wider range of barriers, particularly when implemented in tandem with effective policy and infrastructure solutions.

The following opportunities were identified around engaging people at different stages of their journey towards making green choices, and using communications during timely moments of disruption:

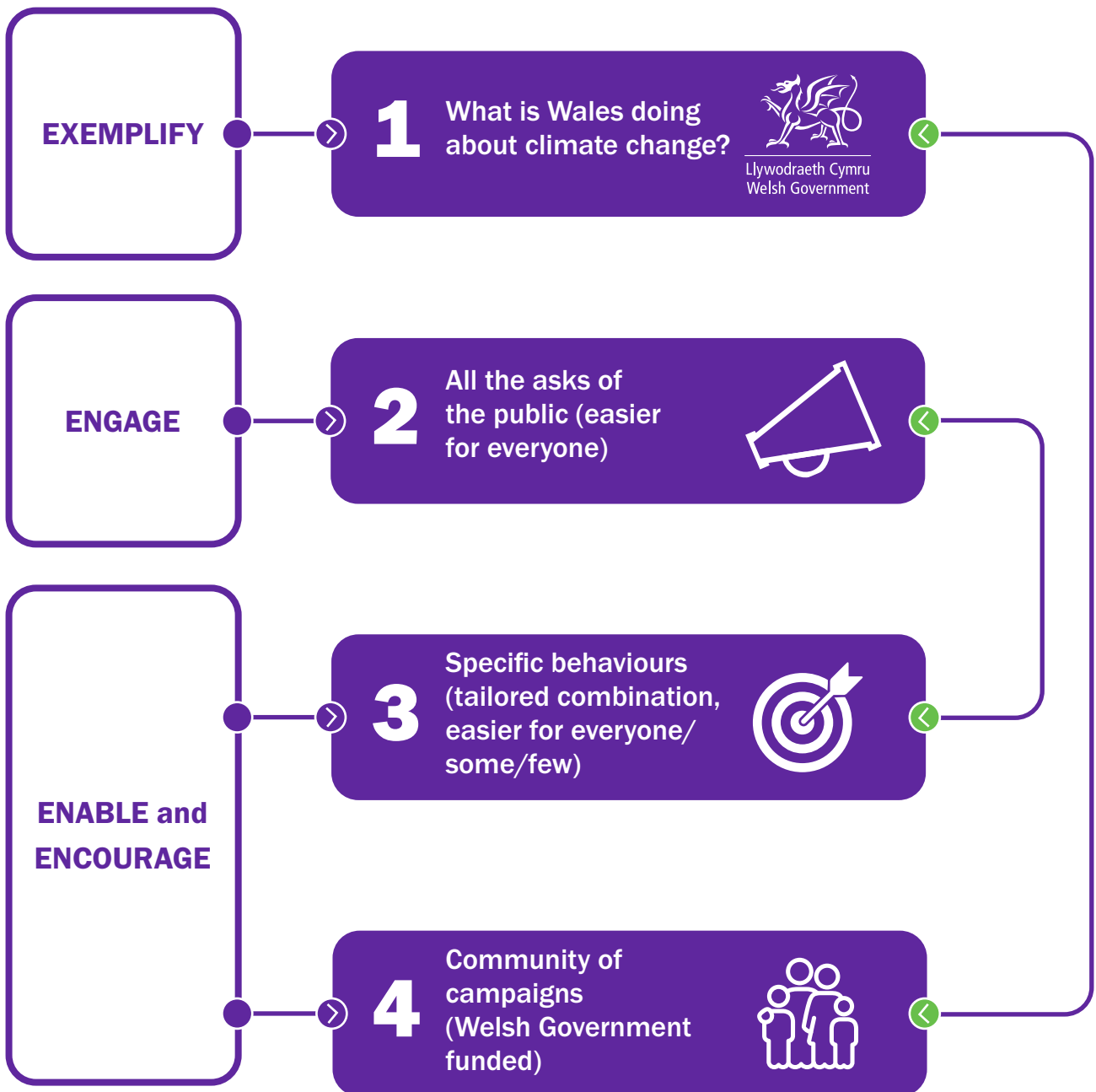
- › **Exemplify** – Build legitimacy and trust.
- › **Engage** – Build approval and awareness.
- › **Enable** – Build procedural knowledge and highlight policy support.
- › **Encourage** – Build motivation, call to action and catalyse social norms.
- › These steps highlight how communications can act as a call to action, but can also warm people up for future action, which means that communications can play a role for both the easier and harder green choices, beginning with smaller asks, but striking a balance and using these as stepping stones towards bigger changes.
- › Draw on evidence around BIT's 11 principles of successful behaviour change communications (EAST) contained within the published [Summary of research into the 'asks' of the Welsh public detailed in the Net Zero Wales plan](#).
- › Recognise that communications will need to be tailored to different audience segments and that some channels are more suited to tailored messages than others.
- › Be mindful of the limitations of communications and seek bigger policy to address practical/financial barriers. Even the very best performing message will likely lead to modest shifts in behaviour. But they can grease the wheels of policy.
- › Calibrate communications based on the in-depth segmentation work undertaken in preparation for the national communications programme to understand and respond to different audience needs and readiness for action.





### Climate Action Wales Campaign

The new national Climate Action Wales campaign will begin in Summer 2023, forming an important component of the delivery programme. The campaign Strategy is described under 4 key blocks:



Blocks 1-3 will run sequentially with the pattern repeated on an on-going basis. The research undertaken to underpin the methodology developed by BIT identified that the barriers people face to climate action vary depending on the nature of the behaviour and people's personal circumstances. Communications cannot address all barriers to action, but can be particularly effective at building people's knowledge and motivation to take climate action. It identified green actions that, on average, anyone can participate in if they have the motivation, knowledge and skills to do so. These actions will be targeted at the public at large, with the national campaign being used to build motivation and knowledge to take these actions up and giving people the skills and knowledge about how to act, and why, the campaign will make these behaviours "easier for everyone".

Moving beyond the lower impact actions, the campaign will focus on identified actions that have a relatively larger climate impact, such as home retrofits. Whilst communications alone will not make these behaviours easy for everyone, it can build up the motivation and knowledge of those who are in a position to take those actions. At the same time, communications can play a role in providing 'warm-ups' for future actions.

Block 4 highlights the importance of using the right messenger and working collaboratively with local authorities and others identified as messengers who are credible subject matter authorities, or peers who would typically exert greater influence. The Welsh Government will work with these organisations to develop a 'community of campaigns', ensuring a consistent narrative and a collective movement to encourage people to adopt green behaviours. The Welsh Government will also ensure important alignment with established campaigns promoting green home energy, transport, food and consumption choices and related topics such as the nature emergency and environmental protection (e.g. clean air and water).

Based on the policy priorities in [Net Zero Wales](#) and related strategies, behavioural research and recommendations from BIT, the following behaviours (split into 'asks' and 'warm-ups') have been identified for year 1 of the block 2 'engage' campaign:

- › **Asks** – Recycle more • Reuse more • Minimise food waste • Buy only what you need • Reduce home energy use • Drive less – cycle/walk more (regional).
- › **Warm-ups** – Repair more • Shop sustainably more • Eat locally and seasonally • Adapt houses for better energy efficiency • Drive less – use public transport more • Fly less • EV adoption.

## Climate Action Wales Digital Hub

The first phase of a new Climate Action Wales Digital Hub (website) will also be launched in Summer 2023, providing a national source of government-led information on climate change. This user-friendly digital platform will provide clear, simple guidance and tailored information to support people on what action they can take (including the impact of different actions) and how they can act.

The Hub will also provide an important signposting service to useful sources of information designed to help people make green choices. Content featured on the Hub will align with the scope of the programme described earlier in this Strategy.

The Hub will be designed to provide clear user journeys designed around the 7-segment

solution developed for targeting messages according to people's different interests, attitudes, goals and motivations, including clear pathways leading to targeted actions.

It will also provide accurate information on climate change and related topics, backed by scientific evidence to help build understanding and overcome sources of disinformation and misinformation (and the increasingly disruptive and distracting role this plays in preventing people from taking action). This will be backed by examples of action being taken by government, businesses and within our communities to inspire and encourage people to act.

Phase 2 of the Hub will include interactive and other resources such as toolkits to support schools and education providers.

### Actions

Many national and regional campaigns are already being implemented by the Welsh Government and other organisations across Wales to support people to make green choices. For example:

- › [Be Mighty. Recycle campaign](#)
- › [Claim What's Yours campaign](#)
- › [Food Waste Action Week](#) and [Love Food Hate Waste](#)
- › [Transport for Wales – Real Social Network](#)
- › [NHS Wales – Healthy Weight Healthy You](#)
- › [Food & Drink Wales – Sustainable Eating Toolkit](#)
- › [Net Zero Skills in Wales](#)

### Commitment

The Welsh Government will launch a new national Climate Action Wales campaign and website in Summer 2023 building on existing campaigns and encouraging people to make green home energy, transport, food and consumption choices in the [Net Zero Wales](#) plan.

The Welsh Government will also engage with other national, regional and local communications networks to encourage a community of campaigns delivered under the *Climate Action Wales* brand.

## 5. Evaluate

**Share the impact of actions: demonstrate meaningful outcomes showing that together we can make a difference.**

### Evaluating Outcomes

Net Zero Wales accepts the recommendations from the Climate Change Committee (CCC) about what Wales' emissions targets should be, but sets our own path about how to get there. This includes setting 5-yearly carbon budgets and using the CCC's solid base for monitoring progress (measured mainly on the economic sectors). Beyond these sectors, the CCC monitoring framework also measures important cross-cutting themes such as public engagement. Similar methods will be used to evaluate the overall impact of Wales' public engagement programme.

The *Climate Action Wales* communications activity will be measured using the GCS Evaluation Framework 2.0, and against a set of specific and measurable campaign objectives. The broader impact of the communications will be measured against baseline and on-going tracking research to determine shifts in public awareness and knowledge on climate change, the impact of green choices, barriers to and facilitators of action.

The new Just Transition Framework to be developed in 2023 will also be used as a basis for measuring how effective the programme has been in benefitting marginalised groups and those disproportionately affected by climate change.

### Actions

Since April 2014, the Welsh Government's National Survey for Wales has been asking people a range of different questions about their views on climate change.

Throughout the Covid-19 pandemic, the Welsh Government also conducted research into the perceptions and awareness of people in Wales on the topic of the environment and climate change via the Daily Life Survey (working with UK Government Department for Business, Energy & Industry Strategy (BEIS) and Scottish Government) and the effect of the pandemic on lifestyle behaviours that impact the environment.

In December 2022 the Welsh Government published a call for evidence to inform the development of a new Just Transition Framework for Wales.

### Commitment

In 2023 the Welsh Government will introduce a new 3-year Net Zero Behaviours and Attitudes Survey as a repeatable method for tracking people's attitudes and behaviours connected to action on the climate and nature emergencies.

# CHAPTER 3 – Delivery Approach & Conclusions

## Delivery partners

### Government and public sector action

The main focus of this Strategy is on the role of government in providing leadership, and how it will work with local authorities and other public service bodies in an integrated delivery approach.

This begins with using the Welsh public sector's own commitments and the ambition of being collectively net zero by 2030, and radically reducing emissions from over 780 public organisations to transform our relationship with nature.

As an important public sector employer, the Welsh Government has significant financial resources and assets under its influence and has published its own [Net Zero Strategic plan](#), providing the targets, governance approach and initiatives to meet net zero.

It also has many of the legislative powers and policy levers at its disposal to help overcome some of the barriers that prevent many people from undertaking the more impactful actions needed to help tackle climate change.

This Strategy highlights the essential role of the Welsh Government in delivering joined-up policy and infrastructure solutions at pace, eliminating bureaucracy around action and focussing on immediate delivery. It also highlights the importance of making policy solutions that have already been introduced more visible so we all understand what the government is doing to provide help, particularly for the poorer and more vulnerable in our society.

### Actions

In December 2022 the Welsh Government published its plan to achieve net zero as an organisation by 2030.

### Commitment

The Climate Action Wales communications programme will publicise to the people of Wales examples of action being taken by the Welsh Government, its staff and by the broader public sector across Wales.

## Business, innovation and skills

Businesses also play an important leadership role. The progress we have seen to date in cutting Wales' carbon emissions has largely been achieved in areas where little public engagement was necessary, and through substantial resource efficiency improvements across our businesses. Although [Net Zero Wales](#) states that emissions from Welsh industry and businesses decreased by 36% between 1990 and 2019, there is still much more that businesses can do to decarbonise their operations.

Businesses also hold many of the cards to enable us to make green choices through innovation and other methods designed to help us all choose greener options. For example, clearer labels can help us to choose greener options. Retailers can increase the availability and prominence of sustainable food options and offer more take-back schemes, refillables, rental models and products which can be more easily repaired and upgraded.

Government can help through legislation. But we can all do more to use our buying power to support businesses that are leaders in tackling the climate challenge. We also have a role in extending the life of products and reducing waste.

Innovation is also critical in ensuring we can all make the more difficult changes ahead. The new [Innovation Strategy for Wales](#) sets out how innovation will be used to improve the lives of everyone in Wales. It describes how social innovation can be used to encourage us to adopt more sustainable lifestyles and to reduce our environmental footprint. Engaging people and communities in decisions made around science, innovation and technology is also important – helping people to overcome uncertainty around new solutions, and bringing more openness, transparency and acceptability for new technologies (and the revival of old technologies) which will ultimately help overcome barriers to action.

Skills are a key enabler for delivering the transition too, and the new [Net Zero Skills Plan](#) addresses the challenges we are facing around current green skills gap and shortages. It also outlines the importance of sustaining existing jobs and highlights the benefit that transitioning to a greener future will bring to future generations and the currently working population, and the opportunity to build new skills and pursue new green career paths.

### Actions

Net Zero Wales asks Welsh businesses to commit to net zero targets and introduce responsible business practices as part of their corporate social responsibility, and that the industrial sector decarbonises industrial processes.

### Commitments

The Climate Action Wales communications programme will encourage people to use their buying power to support businesses which are leaders in tackling climate change.

The communications programme will also promote education, learning, and green skills and career opportunities.

## Collaboration and partnership

**Team Wales** – Although progress is being made, there is no denying the significant task ahead – one which cannot be met through government action alone. This Strategy provides the foundations for a collaborative approach to delivery involving a broad network of Team Wales partners (comprising other public service bodies, businesses and voluntary sector organisations across Wales).

**Place-based approach** – Different communities require different approaches, depending on their local context. A place-based approach will be needed, involving tailored solutions for different parts of Wales, with leadership taken by local authorities using their local climate networks to understand regional issues, opportunities and potential impacts of climate communications and the policies needed to enable action. Place plans, linked to local authority and public service board well-being plans, will provide the best opportunity for involving people in decision-making and facilitating meaningful community engagement.

**Communities** – Active engagement must continue with the voluntary sector and community networks to explore existing community-led initiatives and opportunities for capacity building and scalable solutions. This includes identifying communities and individuals not registered with the charity commission and also doing good work. Support is also needed for people in the community who want to take action to help their community make changes.

**Creativity** – The social transformation towards a greener way of living will need cultural transformation. The creative, arts and culture sectors will play an important role in helping to make engagement on the climate and nature emergencies more accessible, and to build a movement for positive change and renewed sense of Welsh identity.

To overcome increasing levels of climate anxiety, compelling narratives and emotive storytelling techniques will be needed to create positive visions for the future. Our historic environment sector will also ensure we learn more about how society and our environments have transformed themselves in the past, actions being taken to protect our rich heritage, and how sustained traditional building skills are being adapted to safeguard the built environment from the impacts of climate change.



## Actions

In 2022 the Welsh Government published a [Stakeholder Engagement Plan](#) to strengthen the coalition of Team Wales to tackle the climate emergency.

Since 2019 the Welsh Government has hosted an annual [Wales Climate Week](#) to coincide with the [Conference of the Parties \(COP\)](#) to facilitate a national climate conversation between the public, private, academic and voluntary sectors.

Since 2022, Natural Resources Wales has been hosting a '[Nature and Us](#)' national conversation using storytelling and creative techniques to develop a new shared positive vision for the year 2050.

---

## Commitments

The Welsh Government will work closely with national and regional partners (from local authorities to voluntary organisations, civil society and climate activists) to deliver the public engagement programme, recognising the important role of regional partners in unlocking many of the solutions and encouraging peer-to-peer community-based learning.

The Welsh Government will hold at least one blended engagement event annually to build on the success of [Wales Climate Week](#) and will explore the opportunity to develop more year-round opportunities for climate conversations, particularly with the seldom heard, marginalised and vulnerable groups.

## Theory of success

The theory of success for this Strategy is based on the need for:

- › Continued learning by the Welsh Government and its delivery partners to build evidence-based insights on the different barriers that people face in adopting green choices, and the design of effective solutions to help overcome them.
- › Monitoring external influences that are likely to hinder progress such as the current cost of living crisis and how climate change is impacting on different people (and how this may change over time). Timing around the delivery of the programme will be crucial to progress and learning.
- › Prioritising conversations with the seldom heard, children and young people, the more vulnerable and older people and marginalised groups, to ensure their views are heard and they are fully supported through the transition.
- › Reviewing and learning from the successes and challenges of previous Government led public behaviour change programmes, and projects being delivered successfully within our communities.
- › Anticipating early warning signs around the risk of failure associated with this public engagement programme – recognising that transformational change is often chaotic, non-linear and cannot rely solely on theories of success.

The Welsh Government will draw on evidence-based behavioural science models and frameworks, and other methods as appropriate, to design research methodologies and analyse the range of social evidence gathered over the course of the programme. Welsh Government is one of the first governments to use these approaches on itself (rather than just looking to others to change). These methods will be undertaken robustly and reported transparently so that it is clear how the evidence will be used and any limitations in the approach.

### Actions

The Welsh Government commissioned an expert panel of researchers, behavioural science practitioners and climate communications specialists led by BIT to develop the communications methodology for this programme. The project resulted in a series of recommendations which formed the basis of this Strategy. See the [Summary of research into the 'asks' of the Welsh public detailed in the Net Zero Wales plan](#).

### Commitment

The Welsh Government will continue to invest in social research and use behavioural science models and frameworks to ensure that an evidence-based approach is taken towards the delivery of this programme.

## Conclusions & take-aways

This Strategy seeks to outline a framework for engaging the people of Wales in a more sustainable way of living. These are the important take-aways:

- › The climate emergency requires urgent action. The world is also facing a nature emergency. The two are inextricably linked - one cannot be solved without the other. The highest level of leadership and coordination is needed across government and by other public service bodies to embed Wales' response to the climate and nature emergencies in everything they do.
- › Climate change is also threatening the communities in which we live, so we must build resilience to the impacts we are already experiencing through water savings, better flood defences, protection of our natural and historic environments, and within our homes. We must protect both our own health and the more vulnerable in society.
- › The Welsh Government cannot work in a vacuum and must work with international partners, UK Government, local authorities, businesses, communities and the people of Wales to unlock the solutions needed.
- › As a globally responsible nation, we must all consider the impact that our actions are having globally. We can all play a part – from the number of items we buy, to the way in which we reuse and dispose of them, to our consumption of energy and food.
- › We can derive multiple benefits from every green choice we make: improvements to our finances through reduced energy and water usage, improved health and wellbeing, better air quality, new green skills and employment opportunities, greater resilience to climate change within our homes, protection of our land and marine ecosystems, and feeling part of a team or community.
- › The transition to a greener way of living must involve government support structures which are fair, inclusive, and driven by the guiding principle of 'leaving no-one behind'.
- › Although Government and businesses must lead the way, Wales' pathway to net zero will require us all to play a part. The actions many of us are currently taking have so far been comparatively easy and the impact on our lives has been minimal. For the more difficult actions, the Welsh Government has a role to play in making green choices easier, more convenient and more affordable.
- › Different solutions will be needed depending on the local context. A place-based approach will be essential, capitalising on community power and identifying opportunities to scale-up solutions.
- › The power of storytelling and compelling narratives will be useful in creating a positive vision of the future based on a more sustainable way of living.
- › A holistic approach is needed to engage the people of Wales in action on climate change, including the promotion of related actions linked to tackling the nature emergency, protecting the quality of our air, land and water, and the multiple benefits these changes will bring to our health, food system and environment.
- › The theory of success for this Strategy is based on the need for insights and continued learning around the barriers people face in adopting green choices, to inform evidence-based solutions to help overcome them.

- › Although this document provides an important strategic framework, practical action must be delivered at pace. The longer action takes, the more difficult the programme will be to deliver.
- › The guiding principles behind this Strategy focus on the importance of addressing some of the more difficult longer-term challenges, ensuring a whole-systems approach to problem-solving, involving people in shaping government policy-decisions, collaborating with regional and local delivery organisations in an open and transparent way, and ensuring fairness is embedded in the approach.
- › To achieve its aims, delivery of this Strategy will be structured using the 5 'E's Green Choices framework: Exemplify (leading by example), Engage (getting people involved), Enable (making it easier), Encourage (giving the right signals), Evaluate (sharing the impact of actions).

The commitment for Wales to tackle the climate and nature emergencies is backed by public support. People want this change in their own lives. There is growing public concern around over-consumption and calls for solutions to more sustainable ways of living. The recommendations made in this Strategy are the result of extensive consultation, research and views expressed by individuals and organisations from across Wales. A report summarising the outcomes from this consultation has been [published](#).

This Strategy is only the start, and is intended to provide guidance, ideas and insights for us all, and to illustrate how together we can make a difference.



# ANNEX 1

## Indicative longer term changes that may be required:

This Annex highlights the Welsh Government's summary of the Climate Change Committee's balanced pathway to Net Zero at a Welsh level and the changes that the CCC pathway details will be required under each of the emission sectors. This presents an example pathway for Wales and provides a long term indication of some of the changes that may be required by households. The Welsh Government's current pathway up to 2025 is presented in Net Zero Wales and is sufficient for the purposes of meeting our Carbon Budget 2 targets, but acknowledges that further policy development at a UK and Wales level will be required to meet our Carbon Budget 3 targets.

### Agriculture:

- › A reduction in meat and dairy consumption and a reduction in food waste.
- › Reduced emissions from livestock through certain low-carbon farming practices and efficiency improvements in livestock farming.
- › Reduced emissions from agricultural machinery through switching to low-emission agricultural machinery.
- › Reduced emissions from crops and soils through on-farm productivity improvements for crops, and the take up of technological options to reduce emissions from soils.
- › Reduced emissions from animal waste through the take up technological solutions.

### Land Use, Land Use Change & Forestry

- › Afforestation of unforested land, and improved management of existing forests.
- › Peatland restoration through restoration, rewetting and sustainable management of degraded peatlands.
- › Planting of second generation biomass energy crops such as Miscanthus, short rotation coppice (SRC) and Short Rotation Forestry (SRF).

### Residential buildings

- › Installing low-carbon heating in homes and moving away from fossil fuelled heating.
- › Boosting energy efficiency in homes through implementing measures such as loft, floor, and wall insulations, in addition to more low-cost measures like draught proofing and hot water tank insulation.
- › Improving the efficiency of lighting and appliances.
- › Behaviour change in homes which includes measures such as pre-heating (pre-heating ahead of peak times), turning off lights when not in use, take up of smart meters to encourage smarter use of heating and management, using low-flow shower heads etc.

## Surface transport

- › Transitioning the vehicle fleet and public transport away from combustion engine vehicles towards zero-emission vehicles (predominantly electric vehicles).
- › Efficiency improvements for conventional vehicles.
- › Private travel demand reduction and increased use of public transport and modes of active travel.

## Manufacturing and construction

- › Efficiency improvements in production, in addition to substituting some high-carbon input materials with lower-carbon alternatives.
- › Reduced demand for industrial goods.
- › Fuel switching in production towards electrification, low-carbon hydrogen and bioenergy.
- › Application of CCUS to high-emitting industrial plants.

## Electricity generation

- › Mass deployment of renewable energy.
- › Other dispatchable low-carbon generation from nuclear, gas CCS, BECCS and hydrogen.

## Waste

- › Reducing landfill methane generation through a combination of reducing waste arisings, increasing recycling rates, banning certain biodegradable wastes from landfill and later banning all landfilling of waste. Also includes improved methane capture from landfill sites, and increased landfill methane oxidation.
- › Reducing emissions from Wastewater plants through conversion into advanced anaerobic digestion systems, as well as reducing emission leakage.
- › Reducing emissions from energy-from-waste plants through increasing recycling and reduced waste arisings in addition to the installation of CCS at energy-from-waste plants.
- › Reducing emissions from composting through improving compost aeration and product quality, as well as avoiding anaerobic conditions developing.

## ANNEX 2

### Glossary of terms

**Behavioural science** – Behavioural science studies how humans really make decisions and how the environment, emotions, and social factors influence our decisions.

**Biodiversity** – Biodiversity is 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 budget** – The cumulative amount of carbon dioxide (CO<sub>2</sub>) emissions permitted over a period of time to keep within a certain temperature threshold.

**Carbon (or consumption) emissions** – Emissions of greenhouse gases whether in Wales, or elsewhere, that may reasonably be attributed to the consumption and use of goods and services.

**Carbon footprint** – The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organisation, or community.

**Circular economy** – A circular economy aims to maintain the value of products, materials and resources for as long as possible by returning them into the production cycle at the end of their use, while minimising the generation of waste.

**Climate adaptation** – Climate adaptation is about anticipating the risks and impacts arising from climate change and making sure we carry out the work required to ensure we are well prepared.

**Climate resilience** – Climate adaptation is sometimes seen as being part of resilience. Climate resilience is described as a combination of: 1) shock absorbing and coping; 2) evolving and adapting; and 3) transforming.

**Community power** – In the context of public service design and delivery, it is an approach that seeks to create non-transactional, non-hierarchical public services where local communities and communities of interest can shape the parts of the state they interact with.

**Decarbonisation** – The process of reduction or removal of greenhouse gas emissions from our activities, to create a low carbon economy.

**Deliberative public engagement** – A distinctive approach to involving people in decision-making in that it gives participants time to consider and discuss issues in depth before they come to a considered view.

**Deliberative democracy** – Deliberative democracy is a form of democracy that places people at the centre of decision making and provides them with a more direct route to participate in decisions that affect them, their communities and broader society.

**Devolved and reserved powers** – Under the UK's devolution system powers are divided into two categories – devolved and reserved. In devolved areas, decisions are made by the Welsh Parliament and Government, while in reserved areas decisions are made by the UK Parliament and Government.

**Digital hub** – A digital hub brings all the different elements of your online activity under one roof, it encourages interactivity, community and conversation.

**Disinformation** – information deliberately intended to deceive.

**Ecosystems (land and marine)** – An ecosystem is a geographic area where plants, animals, and other organisms, as well as weather and landscapes, work together to form a bubble of life.

**Evaluation framework** – An evaluation is a systematic assessment of the design, implementation and outcomes of an intervention. A framework is a model or a tool that guides the evaluation process through different phases. In Government this is guided by the Magenta Book to ensure quality.

**Government interventions** – Government interventions are regulatory actions taken by Government that seek to change the decisions made by individuals, groups and organisations about social and economic matters.

**Green choices** – Green choices are the choices we can make in our everyday lives to tackle climate change from our home energy, to transport, food and consumption behaviours.

**Green skills** – Green skills are the knowledge, abilities, values and attitudes needed to live in, develop and support a sustainable and resource-efficient society.

**Just Transition** – Globally the world is decarbonising from a fossil fuelled economy. Delivering a just transition will mean, as we move to a cleaner, stronger, fairer Wales, we leave no-one behind.

**Just Transition framework** – The Welsh Government's intention is to publish a Just Transition Framework to provide a strategic approach to achieving a just transition. The Framework will consist of three main components: 1) build our evidence base and research (understanding the impacts and any areas for opportunities to improve equalities), 2) maximise integration across our decision-making processes, sectors and plans, and 3) embed engagement across public, businesses and communities.

**Low-carbon technologies** – Low and zero carbon technologies are terms given to technologies that emit low levels of CO<sub>2</sub> emissions, or no net CO<sub>2</sub> emissions.

**Marginalised groups** – Marginalized groups are those excluded from mainstream social, economic, cultural, or political life due to factors such as race, religion, political or cultural group, age, gender, or financial status.

**Misinformation** – Any information that's incorrect, whether due to error or fake news.

**Net Zero** – Where the greenhouse gases taken from the atmosphere are in balance with the greenhouse gases emitted.

**Over-consumption** – Over-consumption is at the root of the planet's environmental crisis and is the action or fact of consuming something to excess.

**Pathway to Net Zero** – A modelled route showing how emissions reductions are distributed over time, and across sectors, to deliver the target of at least net zero in the year 2050.



**Place-based approach** – Place-based working is an approach used to meet the unique needs of people in one given location by working together to use the best available resources and collaborate to gain local knowledge and insight.

**Public service bodies** – A ‘public body’ is a formally established organisation that is (at least in part) publicly funded to deliver a public or Government service.

**Segmentation** – Segmentation refers to aggregating people or communities with common needs or characteristics – so that policy, services and/or communications can be better tailored.

**Team Wales** – The Team Wales approach is where the Welsh Government, public service bodies, businesses, voluntary sector organisations and local communities across Wales work together to tackle the shared challenges of the climate and nature emergencies (described more fully in the [Welsh Government Engagement Approach 2022-2026](#)).

**Tracking research** – Any study that updates performance over time can be considered a tracking study, even if is only run once year or even less frequently than that. The principle is that the measures and study / sample design are sufficiently consistent for assessment to be made of change over time.

**Visioning techniques** – Visioning techniques present participants with a scenario in which they can visualise the future, but without the facilitator dictating what success looks like.

**Vulnerable groups** – Vulnerable groups are groups of people who may be disadvantaged, excluded, or harmed due to factors outside their control.

**Wales Climate Week** – Held annually to coincide with the [Conference of the Parties \(COP\)](#) global climate change summit, this national Wales event was established by the Welsh Government in 2019 in response to feedback from stakeholders that “talking about climate change is important”. The week brings together Team Wales partners to consider how to collectively deliver policies and programmes associated with climate change.

**Whole systems approach** – A whole systems approach is about identifying the various components of a system and assessing the nature of the links and relationships between each of them.

## ANNEX 3

### Bibliography

**Behavioural Insights Team (BIT)** – [How to build a Net Zero society | The Behavioural Insights Team \(bi.team\)](#) BIT, often known as The Nudge Unit, started life inside No 10 Downing Street as the world's first Government institution dedicated to the application of behavioural sciences. Now a consulting organisation, they work in partnership with national, regional and local Governments, businesses, foundations and charities, to tackle major policy problems.

**Climate Change Committee (CCC)** – [The Climate Change Committee Report, May 2019](#)  
The CCC is an independent, statutory body established under the Climate Change Act 2008. Their 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.

**Intergovernmental Panel on Climate Change (IPCC)** – [SPECIAL REPORT Global Warming of 1.5 °C](#)  
The IPCC is the United Nations body for assessing the science related to climate change.

**IPCC Report 6 (2023)** – [IPCC\\_AR6\\_SYR\\_SPM.pdf](#)  
The IPCC is the United Nations body for assessing the science related to climate change.

**The Government Social Research Code** – [The Government Social Research Code - People and Products - GOV.UK \(www.gov.uk\)](#) (2018)  
Provides efficient, transparent and accountability research information.

**Wales National Survey (2022)** – [National Survey for Wales: results viewer | GOV.WALES](#)  
The National Survey for Wales involves around 12,000 people each year and covers a wide range of topics. It runs all year round, across the whole of Wales. The results are used by the Welsh Government to help make Wales a better place to live.

**Well-being of Future Generations (Wales) Act (2015)** – [WFG Act](#) a ground-breaking legislative framework for sustainable development in Wales.

**World Health Organisation** – [Climate change and health \(who.int\)](#)  
An agency of the United Nations, established in 1948 to promote health and control communicable diseases. It assists in the efforts of member Governments and pursues biomedical research through some 500 collaborating research centres throughout the world. Its headquarters are in Geneva.