



Helpu Cymru i leihau
ei Hôl Troed Carbon
Help Wales reduce
its Carbon Footprint



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

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Climate Change Strategy for Wales

Summary Version



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Summary Version

Climate change is one of the greatest challenges facing the world - and one that requires concerted action by us all.

The Assembly Government has a clear role to play in tackling climate change. Our Climate Change Strategy, and the associated Delivery Plans confirm our commitments, the areas where we will act, and how we will work with our partners to reduce greenhouse gas emissions and enable effective adaptation in Wales.

This summary provides an overview of the Strategy and accompanying Delivery Plans. Further information on the Assembly Government's strategic approach to managing climate change, along with the full Strategy, Delivery Plans and other sector summaries can be found at:

www.wales.gov.uk/climatechange



The challenge of climate change

Our climate is changing. There is now a clear scientific case that this change is being brought about by human activity. Unchecked climate change is one of the most serious threats the world faces because it disturbs the pattern of rainfall, sunshine, winds and currents in the oceans. It threatens the basic elements of life for people and environments around the world, including access to water, food production, health and use of the land.

Urgent and sustained action to cut emissions is needed globally to avoid the worst impacts of climate change in the future. At the same time, we recognise that no matter how effective policies are in reducing greenhouse gas emissions, we will experience some degree of climate change and we will need to adapt to that.

While acknowledging the importance of concerted action at the UK, EU and global levels, the Climate Change Strategy sets out the leadership role the Assembly Government will play and highlights the responsibility that we all have to tackle the causes and consequences of climate change.




Delivering action on climate change: A Strategy for Wales

The Climate Change Strategy and accompanying Delivery Plans on Emission Reduction and Adaptation, set out exactly how we intend to limit greenhouse gas emissions and adjust to changes in our climate. Achieving our aims will depend on everyone making an active and meaningful contribution: all of us - individuals, communities, the third sector, business, Government and the public sector - have critical roles to play if we are to meet our targets.

Our vision for Wales using only its fair share of resources and becoming a fairer and more just society - established in our Sustainable Development Scheme, *One Wales: One Planet* - is central to our approach in managing climate change. Our response is based on the principles of fairness, and our policies will promote social justice also.

The key areas where we will focus our action are:

- A comprehensive approach to behaviour change.
- Leading by example in the Assembly Government and wider public sector to consider climate change in all decision-making.
- Delivering increased energy efficiency, making low carbon transport a reality, and building the skills needed to ensure that Wales can make the most of opportunities from a low carbon economy.
- Making the most of opportunities to cut emissions and adapt to climate change where our natural resources, land management pattern, and economic position allow.

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- Ensuring that our approach to R&D, technology, innovation and skills help Wales gain maximum benefit from climate change related business and research.
 - Creating a framework to support effective adaptation that delivers for those most in need and those less able to adapt.
 - Ensuring that land use and spatial planning promote sustainable development and enable a move towards a low carbon economy which takes account of future climate impacts.



Our targets

Emission reductions of 3 % per year

One Wales: A Progressive Agenda for Wales, commits us to annual reductions in greenhouse gas emissions of 3 % per year in areas of devolved competence by 2011. This target:

- Relates to the “basket” of six greenhouse gases - carbon dioxide, methane, nitrous oxide, hydroflourocarbons, perflourocarbons and sulphur hexafluoride.
- Includes all ‘direct’ greenhouse gas emissions in Wales (except those from heavy industry and power generation) and it also includes the emissions associated with electricity consumption, allocated to end-users in Wales.

Consequently, the 3 % target covers approximately 69 % of total greenhouse gas emissions in Wales.

Baseline

To measure the target, we will compare the relevant emissions in each year from 2011 onwards to a baseline. This baseline will be an average of the relevant emissions between 2006 and 2010. Beginning with a 3 % reduction in 2011, the target is to reduce greenhouse gas emissions by an additional 3 % of the baseline in each year.

Emission reductions of at least 40 % by 2020

We are also committed to achieving at least a 40 % reduction in all greenhouse gas emissions in Wales by 2020 against a 1990 baseline.



Sector targets for emission reductions

To provide challenging targets, while at the same time retaining flexibility for each sector to identify and adopt new measures, we have set target ranges for minimum level of emission reduction we would expect to see from each sector and which we would hope to see exceeded over the period.

These targets cover the following sectors:

- Transport
- Residential
- Business (within the 3 % target as defined earlier)
- Agriculture and land use
- Public sector
- Waste sector.

For the public sector's direct emissions from its buildings, a maximum emission level for 2020 has been set to reflect the Assembly Government's commitment for the public sector to lead by example in efforts to curb emissions.

The following sections and the Emission Reduction Delivery Plan provide further details on these targets.

Adaptation

Unlike emission reduction, there is no single quantitative measure for effective adaptation. We are not setting overall targets for adaptation because adaptation is a process that involves assessing and taking action to address the risk and consequences in a specific area. Instead, we will develop specific performance indicators to measure progress in specific areas.




The actions

Tackling climate change requires us to consider the climate change implications of all our activities and to make decisions informed by those consequences. It also requires the development of policies that address the issues for different sectors and places to deliver emission reduction and effective adaptation. A summary of actions for each sector are set out in this document and more details can be found in the Delivery Plans - for Emission Reduction and Adaptation (available at: www.wales.gov.uk/climatechange)

In developing our Strategy, it became clear that there are a number of key areas that cut across the whole climate change agenda but underpin action in each sector. Our approach to manage these cross-cutting issues is as follows:

- **Supporting behaviour change** by helping people to minimise resource use and enable them to consider the risks posed by climate change.
- **Research and good practice:** the low carbon economy is a priority research area for the Assembly Government.
- **Innovation and skills:** helping Welsh businesses develop and innovate through our ‘Economic Renewal: a new direction’ programme.
- **Buildings:** we have strengthened Wales’ planning policy to reflect our commitments on climate change, and extended our powers to enable us to set ambitious standards for new build.
- **Energy generation:** we will drive reduced energy consumption and improve energy efficiency, and maximise renewable and low carbon energy generation in Wales.

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- **Food:** taking a broad view on the production, distribution and consumption of food in Wales so that we can address the associated climate change impacts.

Transport sector emission reduction

Proportion of GHG emissions in Wales (based on current GHG emissions from this sector)	20 % (approx.)
Baseline (MtCO ₂ e, average of 2006-2008)	7.14
2020 target range (MtCO ₂ e)	5.21 - 5.78

The transport sector is one area where the individual can do much to reduce emissions by making smarter choices, for example through driving more efficiently, or by walking and cycling. We also recognise that by asking people to become less reliant on their own cars we must drive forward investment to improve bus and rail services. We can cut emissions by improving traffic management and reducing the number of vehicles entering our major towns and cities by developing Sustainable Travel Centres. Business has an important part to play also, and we intend to look at how we can support businesses transport freight more efficiently.

Our actions to reduce emissions in the transport sector include:

- Developing Sustainable Travel Centres, and supporting Smarter Choices.
- Promoting eco-driving, walking and cycling.
- Investing in bus and rail services, and improving traffic management.
- Promoting the infrastructure for electric and hydrogen vehicles.


Business sector emission reduction

Proportion of GHG emissions in Wales (based on current GHG emissions from this sector - not including direct emissions from heavy industry and energy generation)	30 % (approx.)
Baseline (MtCO ₂ e, average of 2006-2008)	11.41
2020 target range (MtCO ₂ e)	8.33 - 10.30

The Strategy sets out how we intend to provide business with the advice and support needed to reduce emissions and contend with the challenge of climate change, particularly small and medium-sized business and energy-intensive industries. In addition to identifying and sharing best practice, we need to improve our research and development and skills so that business is better placed to take advantage of the opportunities of the new green economy. By making more effective use of waste heat and driving improved energy efficiency, business can reduce their emissions and increase profitability. As with transport, the land use planning system is vital in enabling low carbon development, and will be applied to help business more readily adapt to climate change impacts.

Our actions to reduce emissions in the business sector include:

- Enhancing support for businesses, including SMEs.
- Supporting R&D, skills and business development to ensure Wales can benefit from the opportunities of a new green economy.
- Better sharing of good practice across businesses.

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- Ensuring that resource use is minimised and that wastes are regarded as a resource for use.
 - Ensuring that the planning system enables low carbon development.


Residential sector emission reduction

Proportion of GHG emissions in Wales (based on current GHG emissions from this sector)	20 % (approx.)
Baseline (MtCO ₂ e, average of 2006-2008)	7.48
2020 target range (MtCO ₂ e)	5.46 - 6.04

Many of us have the means to reduce emissions from our homes and the Strategy sets out how communities and individuals can be supported through locally-delivered behaviour change programmes tailored to their needs. Direct funding for energy efficiency and low carbon measures will be targeted at those in fuel poverty, but we will also look to provide solutions for ‘able-to-pay’ households and the UK Government’s Green Deal will be important in this context. Going forward, we will set the highest standards for new build and use the land use planning system to develop a sustainable and resilient built environment.

Our actions to reduce emissions in the residential sector include:

- Encouraging installation of cost-effective energy efficiency measures in all households and adopting a ‘whole house’ approach.
- Developing an area-based approach to domestic energy efficiency.

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- Targeting investment at those vulnerable to fuel poverty, and supporting community scale energy generation.
 - Ensuring that land use planning decisions are informed by the need to minimise emissions.

Agriculture and land use sector emission reduction

Proportion of GHG emissions in Wales (based on current GHG emissions from this sector)	15 % (approx.)
Baseline (MtCO ₂ e, average of 2006-2008)	5.57
2020 target range (MtCO ₂ e)	4.07 - 4.97

Glastir, our new land management scheme, will deliver emission reduction and wider environmental benefits. We will continue to provide advice and support to the farming industry and enable the creation of new woodland to increase Wales' carbon sequestration potential.

Our actions to reduce emissions in the agriculture and land use sector include:

- Agriculture and land management schemes targeted at reducing greenhouse gas emissions.
- Additional woodland creation.
- Advice and support to farmers and land managers.

Resource efficiency and waste sector emission reduction

Proportion of GHG emissions in Wales (based on current GHG emissions from this sector)	4 % (approx.)
Baseline (MtCO ₂ e, average of 2006-2008)	1.30
2020 target range (MtCO ₂ e)	0.64 - 0.95

There is a major role for individuals, organisations and the public sector in making or encouraging, resource use choices. By looking more critically at what and how much we consume, we will be able to deliver sustained emission reduction in the waste sector.

Our actions to reduce emissions in the waste sector include:

- Reducing greenhouse gas emissions from landfill sites.
- Reducing indirect emissions associated with resource consumption by increasing reuse, recycling and composting.
- Implementing our Waste Strategy and Sector Plans.

Public sector emission reduction

Proportion of 3% target (based on current GHG emissions from this sector)	4 % (approx.)
Baseline (MtCO ₂ e, average of 2006-2008)	1.13
2020 target range (MtCO ₂ e)	0.83

While the level of greenhouse gas emissions in Wales is relatively low compared to other sectors, the public sector has a significant role to play in demonstrating leadership, developing and sharing good practice, and setting an example for other organisations to follow. The Strategy and Delivery Plans outline how we intend to improve the energy performance of public sector buildings in Wales, and reduce the carbon footprint of the Assembly Government estate and education and health services.

Our actions to reduce emissions in the public sector include:

- Embedding climate change in Community Strategies through guidance and by sharing good practice.
- Reducing the carbon footprint of the Assembly Government estate.
- Reducing the carbon footprint of education and health services.
- Delivering public sector buildings to higher standards of energy performance.



How will climate change affect Wales?

As a result of current emissions and those that have already occurred, we cannot avoid the impacts of climate change entirely. As a result, we need to consider how we are going to adapt to changes that will affect many aspects of our lives in the future.

Climate change is a complex process which makes predicting exactly what will happen, where and when, very challenging. But our understanding of future climate change is improving and we are using new information and tools to help understand how the consequences of climate change may affect our economy, environment and society.

Using climate scenarios from UKCP09, Wales is likely to experience temperature increases of between 2.0 and 2.5°C by 2050.

Annual average rainfall in Wales is predicted to remain roughly the same as present, but there is likely to be a large difference in the patterns of summer and winter rainfall in the future.

Future sea level rise along Wales' coast is likely to result in more severe coastal erosion, and inundation events more likely in low-lying coastal areas

Our short guide, *Climate Change: its impacts for Wales* provides more information on the expected consequences of climate change and is available at: www.wales.gov.uk/climatechange.



Adapting to climate change impacts

The earlier Wales starts to prepare for the impacts of climate change, the better equipped we will be to cope with a changing climate.

Consequently, we will deliver a national, co-ordinated approach via our Adaptation Framework to ensure that Wales is well-placed to adapt to a changing climate.

The Framework approach aims to address climate vulnerability by:

- Building our evidence base on future impacts.
- Mainstreaming adaptation to build capacity within organisations and communities.
- Communicating on adaptation to ensure that decision makers understand the risks and opportunities and are equipped to manage them.

Our Adaptation Framework is supported by the provisions of the Climate Change Act (2008), which provides Ministers with specific powers to support climate change adaptation.

Further details are set out in the full Strategy and Adaptation Delivery Plan.