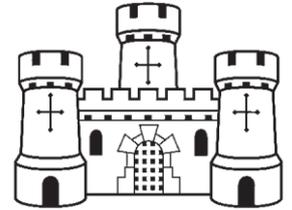


Public Document Pack

Date of meeting Monday, 25th November, 2019
Time 7.00 pm
Venue Lancaster Buildings - Lancaster Buildings, Newcastle, Staffs
Contact Jayne Briscoe 2250



**NEWCASTLE
UNDER LYME
BOROUGH COUNCIL**

Castle House
Barracks Road
Newcastle-under-Lyme
Staffordshire
ST5 1BL

Economy, Environment & Place Scrutiny Committee

AGENDA

PART 1 – OPEN AGENDA

- 1 APOLOGIES**
- 2 DECLARATIONS OF INTEREST**
- 3 CLIMATE EMERGENCY MOTION** (Pages 3 - 16)
- 4 PUBLIC QUESTION TIME**

Any member of the public wishing to submit a question must serve two clear days' notice, in writing, of any such question to the Borough Council.

- 5 URGENT BUSINESS**

To consider any business which is urgent within the meaning of Section 100B (4) of the Local Government Act 1972.

Members: Councillors Mrs J Cooper, A. Fear, G. Heesom (Vice-Chair), D. Jones, M. Olszewski, B. Panter, M. Reddish, A. Rout, J Tagg and G White (Chair)

Members of the Council: If you identify any personal training/development requirements from any of the items included in this agenda or through issues raised during the meeting, please bring them to the attention of the Democratic Services Officer at the close of the meeting.

Meeting Quorums :- 16+= 5 Members; 10-15=4 Members; 5-9=3 Members; 5 or less = 2 Members.

SUBSTITUTE MEMBER SCHEME (Appendix 9, Section 4 of Constitution)

The Constitution provides for the appointment of Substitute members to attend Committees. The named Substitutes for this meeting are listed below:-

Contacting the Council:

Switchboard 01782 717717 . Text 07800 140048

Email webmaster@newcastle-staffs.gov.uk.

www.newcastle-staffs.gov.uk

Substitute Members: G. Burnett A. Parker
 H. Maxfield J. Walklate
 K.Owen P Waring

If you are unable to attend this meeting and wish to appoint a Substitute to attend in your place you need to:

- Identify a Substitute member from the list above who is able to attend on your behalf
- Notify the Chairman of the Committee (at least 24 hours before the meeting is due to take place) NB Only 2 Substitutes per political group are allowed for each meeting and your Chairman will advise you on whether that number has been reached

Officers will be in attendance prior to the meeting for informal discussions on agenda items.

NOTE: THERE ARE NO FIRE DRILLS PLANNED FOR THIS EVENING SO IF THE FIRE ALARM DOES SOUND, PLEASE LEAVE THE BUILDING IMMEDIATELY THROUGH THE FIRE EXIT DOORS.

NEWCASTLE-UNDER-LYME BOROUGH COUNCIL**EXECUTIVE MANAGEMENT TEAM'S REPORT TO THE
Economy Environment & Place Overview and Scrutiny Committee****Date: 25th November 2019****REPORT TITLE: Climate Emergency Council Motion****Submitted by: Executive Director – Operational Services****Portfolio: Environment & Recycling****Ward(s) affected: All****Purpose of the Report**

This report has been prepared for members to consider following a Motion to Members of the Council at its meeting of 3rd April 2019 where the Council acknowledged that there is a Climate Emergency and that as an Authority, we can play a part in trying to address it.

This Motion invites the Economy, Environment and Place Scrutiny Committee to review the Councils record on mitigation and adaptation in respect of climate change and to make recommendations to Cabinet with regard to necessary future actions.

Recommendations

Scrutiny are requested to consider the role that they wish to take in taking the Climate Emergency Motion forward both within the Council and on the Borough wide scale in conjunction with a range of potential partners.

There are a number of actions that Scrutiny may consider progressing including the following:

- a) As agreed in the Motion, review the Councils record on mitigation and adaptation in respect of climate change and make recommendations to Cabinet with regard to necessary future action.
- b) Request and scrutinise a report that sets out the Councils record in relation to a) above, but that also sets out the Councils current carbon footprint, plans in place to reduce emissions from its activities and options for further avoidance, reduction and mitigation.
- c) Request that the Members submitting the Motion be invited to attend a meeting of this Committee to discuss and explore how the Carbon Neutral Borough commitment can be progressed.
- d) Following scrutiny of the issue, submit a report to Cabinet recommending a plan of action to make significant steps towards achieving a carbon neutral Borough by 2030.

1. Background

1.1 The Council Motion

At its meeting on 3rd April 2019, Full Council received and debated the following motion:

This Council notes:

That over 41 councils have passed 'climate emergency' motions since the IPCC (Intergovernmental Panel on Climate Change) report on Global Warming of 1.5°C was published in October 2018. This report describes the major environmental harms that a 2°C rise in world temperature is likely to cause and urges that governments and related authorities world-wide seek to limit global temperature rises to 1.5°C.

That there is cross party support for climate emergency motions and ambitious carbon reduction strategies – the 41 councils that have already passed such a motion include Labour led, Conservative led, Liberal Democrat led and NOC authorities.

That the IPCC's Special Report on Global Warming of 1.5°C argues that limiting Global temperature rises to 1.5°C may still be possible with ambitious action from national Governments AND local Government working in collaboration with partner agencies, organisations, groups and local communities.

This Council further notes:

The establishment in 2007 and facilitation by Staffordshire County Council of the Staffordshire Climate Change Partnership and climate change adaptation group.

That in 2008 this council was a signatory to the Nottingham Declaration, making a public commitment to tackle climate change in concert with other councils.

That this council subscribed in September 2013 to the 'Climate Local' commitment, preparing and authorising an action plan to reduce carbon emissions and to promote action to tackle climate change with our partners and residents.

That since 1990, the UK has cut its carbon emissions by more than any other G20 country as a proportion of its economic growth, through the ambitious measures of the Climate Change Act 2008; is on target to reduce all greenhouse gas emissions by 80 per cent by 2050; and will see the closure of all coal-fired power stations by 2025.

That the councils, businesses and individuals of Newcastle-under-Lyme have demonstrated their ongoing commitment to reducing CO2 emissions in the Borough, which have fallen from 1024.4 kilotons in 2005 to 807.8 kt in 2016, the most recent year for which data is available (source: BEIS/National Atmospheric Emissions Inventory).

1.2 The Council subsequently resolved:

- a. *To acknowledge that there is a climate emergency and that as an authority we can play a part in trying to address it.*
- b. *To aim to make Newcastle under Lyme a carbon-neutral borough by 2030.*
- c. *To establish and support a climate change action group that is chaired by an individual from outside of the borough council and is comprised of representatives of all parties on the council, council officers, representatives of local employers, local education establishments, partner organisations, local community groups, faith groups, local*

environmental groups, trade unions and other representatives of local civil society to encourage and coordinate the drive towards a carbon-neutral borough.

- d. To require the cabinet and senior officers to collaborate with this action group, to examine what more can be done by the borough council to deliver a carbon-neutral borough, and for cabinet to work with the action group to produce and publish a plan setting out how the council, through its policies, practices and actions will help to deliver a carbon-neutral borough by 2030.*
- e. To require that cabinet, as part of the regular performance review process routinely review progress against this plan and if necessary take action to expedite progress towards the carbon-neutral goal.*
- f. For the Chief Executive to host in Newcastle a meeting of CEOs, leaders and cross party representatives from Staffordshire County Council, Stoke City Council, District councils across Staffordshire and our neighbouring non-Staffordshire councils to produce a regional climate emergency strategic collaboration plan to move to a carbon-neutral region. Regular meetings of this group will become a part of the battle for a carbon neutral region.*
- g. To require that the chief executive and the leaders of all groups on the council jointly write to the Secretary of State for the Environment, Food and Rural Affairs declaring a climate emergency and urging him to give local government across the region powers and funding to take meaningful action to address this emergency.*
- h. To invite the Economy, Environment and Place Scrutiny Committee to review the council's record on mitigation and adaptation in respect of climate change and to make recommendations to cabinet with regard to necessary future action.*
- i. To ask that the chief executive and the leaders of all groups on the council jointly write to the Secretary of State for the Environment, Food and Rural Affairs urging him to give local government across the UK powers and funding to take meaningful action to address this emergency, and to legislate for a binding UK-wide net zero emissions target at the earliest practicable point in the future.*

1.3 What is the Meaning of Carbon Neutral?

At the crux of the motion is the aim to make the Borough 'Carbon Neutral' by 2030.

However, it is important to establish what is meant by the term Carbon Neutral. There appear to be some variances in a definition of the term and indeed how this is achieved.

One common interpretation is that achieving Carbon Neutrality is around a process of:

- 1. Calculating the carbon/greenhouse gas emissions of a particular entity. This is typically known as a 'Carbon Footprint'*
- 2. Avoiding emissions by finding alternatives to the 'business as usual' scenario*
- 3. Reducing emissions through low carbon efficiency measures*
- 4. Offsetting/mitigating any residual emissions*

It is intended that the end result of the process is that a carbon balance is achieved whereby any residual carbon emissions that remain after avoidance and reduction measures, are offset or mitigated in some way to achieve a 'net carbon zero' balance.

1.4 The Emergence of the Climate Emergency Agenda

Since the Intergovernmental Panel on Climate Change (IPCC) report in October 2018 the Climate Emergency movement has emerged; originating in Australia and shifting to the UK in November 2018 when Bristol City Council became the first UK local authority to declare a Climate Emergency. Since then a whole host of councils have declared Climate Emergencies and set targets to become carbon neutral.

The most commonly set date is 2030, with others setting targets for dates such as 2028, 2038 and 2050. The majority of local authority carbon neutral targets that have been inspired by the Climate Emergency movement, including this Councils target of 2030 is more radical than the UK Governments target of an 80% reduction in emissions by 2050.

The Climate Emergency movement has emerged following the October 2018 IPCC special report on the state of global warming. The report warned of the rapid and far reaching consequences of over 1.5 °C of warming to temperatures and the report outlines that limiting global warming to 1.5°C would require rapid, far-reaching and unprecedented changes in all aspects of society.

The report outlines that there are clear benefits to people and natural ecosystems of limiting global warming to 1.5°C compared to 2°C which could go hand in hand with ensuring a more sustainable and equitable society. It is therefore widely recognised that carbon neutrality is a necessary target if all is to be done to keep global warming below the 1.5 °C limit.

A major motivator for declaring a Climate Emergency is to galvanise support for the climate change agenda and set a clear target by which the Borough, through working with a wide range of partners, will be become carbon neutral.

An increasing number of Councils are declaring Climate Emergencies in a similar way to that declared by this Council. As recently in late July this year, Staffordshire County Council has also made the following commitment:

Staffordshire County Council 'Declares a 'Climate Emergency', and commits to supporting Staffordshire councils in their work to tackle climate change by providing a strong unified voice for councils in lobbying for support to address this emergency, and sharing best practice'

2. Issues

2.1 The Challenge

This motion commits the Council to ensuring that the Borough of Newcastle under Lyme (not just the Borough Council) becomes carbon neutral by 2030. Becoming a carbon neutral Borough is by no means whatsoever an easy task as carbon is currently embedded into all aspects of modern life, whether that be in the public, private, educational, health, transport and utility sector.

What this means in reality is that the Councils, residents, businesses and all sectors will in some way need to adapt and change on a strategic, operational and practical level if a carbon neutrality target is to be realised.

Therefore, the Climate Emergency declaration and carbon neutrality target needs to be accompanied by a clear and agreed action plan that is developed, supported by and embedded in the local authority area as a whole. The Council has commercial activities and industries that operate within the locality and large companies and SMEs will need to be on board with any target setting too.

In the Committee on Climate Change (CCC) report '*How local authorities can reduce emissions and manage climate change*' (May 2012) it is considered that there is a significant risk that local authorities will not develop and implement sufficiently ambitious low-carbon plans, following the removal of the national indicator framework and given the highly constrained fiscal situation.

It is worth noting that the local authority fiscal situation has worsened significantly since that time too. The Committee concluded that in order to mitigate this, the Government should seriously consider providing additional funding and/or introduce a statutory duty for local authorities to develop and implement low-carbon plans.

The Committee set out 10 key messages for Local Authorities:

1. Local authorities play an important role in delivering national carbon targets
2. Action on climate change has many local benefits
3. Improving energy efficiency in building is a key area for action
4. Planning functions are a key lever in reducing emissions
5. Low carbon district heating should be pursued
6. Transport policies plays an important part in reducing emissions
7. Waste prevention and sustainable waste management are important roles.
8. Local authorities should develop low-carbon plans
9. Reducing emissions from Local authorities own estates demonstrates leadership
10. Adaptation of buildings and infrastructure to increase resilience is a crucial role.

Examples of successful actions already undertaken by the Borough Council over the last few years to reduce its own carbon output (footprint) include changes to current practices and high profiles schemes such as:

- Incorporated a wide range of energy efficiency measures at Jubilee 2.
- Developed Keele Cemetery using sustainable building methods.
- Reduced the Councils energy use through sharing accommodation in Castle House
- Improved sustainability of fleet operations through procurement of latest fuel and emissions efficient vehicles, route optimisation and multi-purposing.
- Supporting residents in reducing energy consumption in their homes through the Warm Zone initiative
- Installed energy efficient lighting and controls in a number of public buildings and car parks.
- Installed and operate mercury emission abating cremators.
- Promote sustainability and environmental responsibility through the Britain in Bloom campaign.
- Completed energy Audits of key public buildings
- Exploration of green energy supply alternatives.
- New Policies in place to guide how open spaces are managed to mitigate climate change impacts.

In a recent briefing from the Association of Public Sector Excellence (APSE) it is considered that it is highly likely that Climate Emergency declarations by local authorities will lead to

more renewable energy initiatives, which could also provide opportunities for revenue generation.

They consider that the reason for this is that energy is the preferred route to tackle this problem for many of the authorities concerned and that many local authorities understand that they can have an impact on climate change by focusing on energy generation and energy efficiency programmes and see this as an area that is within their control, certainly so far as their own assets and land is concerned and one where they can demonstrate real progress.

2.2 The Evidence

In May this year, the Committee for Climate Change (CCC) published the report of their investigation into climate change in the document '*Net Zero – The UK's contribution to stopping global warming*'. In this report, the Committee on Climate Change recommends a new emissions target for the UK: net-zero greenhouse gases by 2050.

In the foreword to the report, the Chair of the Committee, The Rt Hon. the Lord Deben, states:

'Our recommendation emerges clearly from the extensive evidence presented here for the first time. We have reviewed the latest scientific evidence on climate change, including last year's IPCC Special Report on Global Warming of 1.5°C, and considered the appropriate role of the UK in the global challenge to limit future temperature increases.

We have built a new understanding of the potential to achieve deep emissions reduction in the UK and made a fresh appraisal of the costs and benefits to the UK economy of doing so'. And goes on to say:

'We conclude that net-zero is necessary, feasible and cost-effective. Necessary – to respond to the overwhelming evidence of the role of greenhouse gases in driving global climate change, and to meet the UK's commitments as a signatory of the 2015 Paris Agreement.

Feasible – because the technologies and approaches that will deliver net-zero are now understood and can be implemented with strong leadership from government. Cost effective – because falls in the cost of key technologies permit net-zero within the very same costs that were accepted as the likely costs by Parliament in 2008 when it legislated the present 2050 target'.

An 'info-graphic' extracted from the Net Zero Report is attached as an appendix to this report. This explains the current and projected damaging climate impacts and how the UK can, using known technologies, end its contribution to global warming by reducing emissions to Net Zero by 2050.

2.3 The Governments Response

On 12th June 2019, the Government subsequently announced that the UK will eradicate its net contribution to climate change by 2050.

It is intended that a statutory instrument will be laid in Parliament which will amend the Climate Change Act 2008, in order to implement the announcement. This would mean that the UK would be the first G7 country to legislate for net zero emissions and is likely to introduce statutory responsibilities upon all levels of government including District Councils.

Further work will be needed to assess the extent to which this new legislation will require the Council to act, and how this relates to the already stated commitment and aims of the Council in relation to carbon neutrality will be evaluated once more information is known.

This announcement has been welcomed by the CCC which acknowledges that this is the first step and the target must now be reinforced by credible UK policies, across government, inspiring a strong response from business, industry and society as a whole. They also consider that the government has not yet moved formally to include international aviation and shipping within the target, but they have acknowledged that these sectors must be part of the whole economy strategy for net zero.

The CCC has committed to assist by providing further analysis of how emissions reductions can be delivered in these sectors through domestic and international frameworks.

There is no indication at this stage whether the Government will provide funding to progress this work or whether it will be left to each local area to identify funding opportunities. This could present a major barrier to the achievement of carbon neutral targets unless funding support is forthcoming.

2.4 Progress so far

In respect of the Motion and all its parts as set out in section 1.3 above, progress has been made with the following aspects:

To acknowledge that there is a climate emergency and that as an authority we can play a part in trying to address it.

The debate and subsequent passing of the Climate Emergency Motion at Full Council makes this acknowledgment both that there is an emergency and that the Council can play a part in trying to address it.

To ask that the chief executive and the leaders of all groups on the council jointly write to the Secretary of State for the Environment, Food and Rural Affairs urging him to give local government across the UK powers and funding to take meaningful action to address this emergency, and to legislate for a binding UK-wide net zero emissions target at the earliest practicable point in the future.

A letter has been sent to the Secretary of State, signed by all Group Leaders. A reply has not been received at the date of publication of your agenda.

2.5 Next Steps

The following section sets out the further elements of the Motion that require consideration in terms of how these can be progressed. EEP Scrutiny are asked to consider whether it is practical for the Council and its partners to take these aspects can be taken forward and incorporate appropriate actions into its Work plan, and ultimately make recommendations to Cabinet in these respects. The notes under each remaining element of the motion below are meant to assist Scrutiny in considering their subsequent responses.

To aim to make Newcastle under Lyme a carbon-neutral borough by 2030.

As above, the Motion itself provides the aspirational framework for achieving this aim, however, this requires a very substantial body of pan-Borough work including but not restricted to work to:

- a. Identify how, where and when carbon emissions are produced through a full audit of activities,
- b. Audit current and planning work already underway locally to reduce carbon emissions,

- c. Identify and develop options for ceasing, reducing or off-setting carbon emissions,
- d. Consider cost and identify available funding streams to progress preferred options,
- e. Identify delivery capacity, mechanisms and realistic timescales and,
- f. Agree monitoring and reporting structures.

To invite the Economy, Environment and Place Scrutiny Committee to review the council's record on mitigation and adaptation in respect of climate change and to make recommendations to cabinet with regard to necessary future action.

It is proposed to prepare a report for Scrutiny to consider that sets out the actions that have already been completed over the last 5 years to mitigate the Councils carbon footprint and adapt its management and operation of services in respect of climate change as well as options for how this work can be accelerated in the future.

This will require significant Officer Input and potentially require the procurement of external support due to the current availability of Officer capacity and expertise in this area.

To establish and support a climate change action group that is chaired by an individual from outside of the borough council and is comprised of representatives of all parties on the council, council officers, representatives of local employers, local education establishments, partner organisations, local community groups, faith groups, local environmental groups, trade unions and other representatives of local civil society to encourage and coordinate the drive towards a carbon-neutral borough.

Officers are exploring with Keele University the potential make up of a Climate Emergency Partnership for the Borough. Clearly the University is a world class leader in environmental technologies and sustainability and policy development and practices and could, with their agreement, make a significant contribution to the development and implementation of a Borough wide Climate Emergency Action Plan.

Members will wish to explore the opportunities that exist in partnering closely with the University and as a next step; an invitation could be extended to the University to meet with the EEP Scrutiny Committee further and discuss the role of the University in this work.

To require the cabinet and senior officers to collaborate with this action group, to examine what more can be done by the borough council to deliver a carbon-neutral borough, and for cabinet to work with the action group to produce and publish a plan setting out how the council, through its policies, practices and actions will help to deliver a carbon-neutral borough by 2030.

The Council would be a key member of the Action Group from the perspectives of both adaptation and mitigation of its own operations but also in the wider pan-Borough work to achieve the Carbon Neutral Borough.

The resource implication of this is not quantifiable at this stage but is expected to be significant nonetheless and it will be necessary to consider how existing capacity will be prioritised as well as the areas of the Councils work that will have to reduce to meet this new aspiration.

To require that cabinet, as part of the regular performance review process routinely review progress against this plan and if necessary take action to expedite progress towards the carbon-neutral goal.

An appropriate performance monitoring and review process can be agreed as part of the development of the Climate Emergency Action Plan once agreed by the Action Group.

For the Chief Executive to host in Newcastle a meeting of CEOs, leaders and cross party representatives from Staffordshire County Council, Stoke City Council, District councils across Staffordshire and our neighbouring non-Staffordshire councils to produce a regional climate emergency strategic collaboration plan to move to a carbon-neutral region. Regular meetings of this group will become a part of the battle for a carbon neutral region.

This may be an appropriate early action that could be chaired and co-ordinated by the Climate Emergency Action Group once established.

3. Proposal

- 3.1 Scrutiny are requested to consider the role that they wish to take in taking the Climate Emergency Motion forward both within the Council and on the Borough wide scale in conjunction with a range of potential partners.

There are a number of actions that Scrutiny may consider progressing including the following:

- a. As agreed in the Motion, review the Councils record on mitigation and adaptation in respect of climate change and make recommendations to Cabinet with regard to necessary future action.
- b. Request and scrutinise a report that sets out the Councils record in relation to a) above, but that also sets out the Councils current carbon footprint, plans in place to reduce emissions from its activities and options for further avoidance, reduction and mitigation.
- c. Request that the Member submitting the Motion be invited to attend a meeting of this Committee to discuss and explore how the Carbon Neutral Borough commitment can be progressed.
- d. Following scrutiny of the issue, submit a report to Cabinet recommending a plan of action to make significant steps towards achieving a carbon neutral Borough by 2030.

4. Outcomes Linked to Sustainable Community Strategy and Corporate Priorities

The achievement of a Carbon Neutral Borough is an overarching aim that links to the Councils priorities for a sustainable economy, a safe environment and improving the health and quality of life for residents and visitors.

5. Legal and Statutory Implications

The Climate Change Act 2008 has the following provisions:

5.1 Carbon targets and carbon budgeting

The Act places the government under a legal duty to reduce greenhouse gas emissions by 80% below 1990 levels by 2050. There is also an interim target to reduce carbon dioxide emissions by 26% by 2020. The government must set out a series of five year carbon budgets which will begin to lay out the reduction pathway to 2050. The first three carbon budgets will run from 2008-12, 2013-17 and 2018-22. The government must prepare policies that will keep emissions inside these budgets.

5.2 The Committee on Climate Change

The Act also establishes the Committee on Climate Change, an independent, expert body to advise government on the appropriate level for the targets, budgets, and on matters relating to mitigation and adaptation. The Committee will submit annual reports to parliament on progress towards the targets and the government must respond to this report.

5.3 Councils Duty to reduce carbon emissions

There are currently no statutory requirements for local authorities to set or negotiate targets to reduce their own or area wide emissions. Any statutory duty to develop an area-wide low-carbon plan and report on its implementation would be beneficial in ensuring an uniform approach to the contribution local authorities would make to carbon reduction, however, it would also require the Council to prioritise carbon avoidance and reduction actions within its existing financial budgets unless additional funding support is made available from the Government

However, in view of the recent announcement by the UK Government outlined in section 2.3 of this report, in that it is intended that a statutory instrument will be laid in Parliament which will amend the Climate Change Act 2008, it is likely that this would introduce statutory responsibilities upon all levels of government including potentially District Councils.

6. Equality Impact Assessment

6.1 At this stage an Equality Impact Assessment has not been undertaken. It will be necessary, as work progresses, to assess the impact of proposed actions for any equality impacts.

7. Financial and Resource Implications

7.1 There are no direct financial implications for the Council arising from this report. However, the impact of the Motion passed by Council could have significant financial and resource implications for the Council but at this stage it is too early to identify what those would be.

7.2 In the meantime, it is envisaged that there will be significant Officer time required arising from the outcome of this report and this will need to be balanced alongside the Councils existing priorities and projects.

8. Major Risks

8.1 A full risk assessment will form a part of the development of a Carbon Neutral Plan for the Borough.

9. Sustainability and Climate Change Implications

9.1 This report has significant implications for sustainability and climate change as it seeks to agree a formal response to the Climate Emergency Motion passed at Council.

10. Key Decision Information

10.1 Not applicable to this report.

11. Earlier Cabinet/Committee Resolutions

11.1 Not applicable to this report.

12. List of Appendices

12.1 Committee on Climate Change info-graphic

13. Background Papers

13.1 None.

This page is intentionally left blank

Damaging climate impacts are already being felt today.

Reducing global emissions faster will hold warming to lower levels.

Every degree matters.

Climate change is here today:

- The frequency of heatwaves has increased around the world. Many extreme events are being made more likely due to climate change.
- Sensitive ecosystems, such as coral reefs, are being damaged due to extreme heat.
- Animals on the land and the ocean are shifting their territories in response to climate change.

Unchecked emissions growth would lead to very severe and widespread climate change at 4°C or more by 2100.

The world is moving towards a low-carbon future, reducing some risks. We are currently on track for around 3°C of warming by 2100.

The world has committed to reduce emissions faster to keep warming 'well-below' 2°C. This would help limit the most damaging effects of climate change.

Keeping below 1.5°C would limit many important risks further, helping to protect key ecosystems and reducing impacts on poorer people around the world.

UK action to address climate change can have an international impact



The UK can and should act as a leader in the global response to climate change - UK emissions contributed to causing it, and its leadership can have an international impact.



The UK has been a leader on climate change action. The UK has the opportunity to continue its leadership and join other countries already pursuing net-zero emissions targets.



The UK has committed to act by signing the Paris Agreement. This provides many options for countries to collaborate to reduce their emissions and prepare for the impacts of climate change.

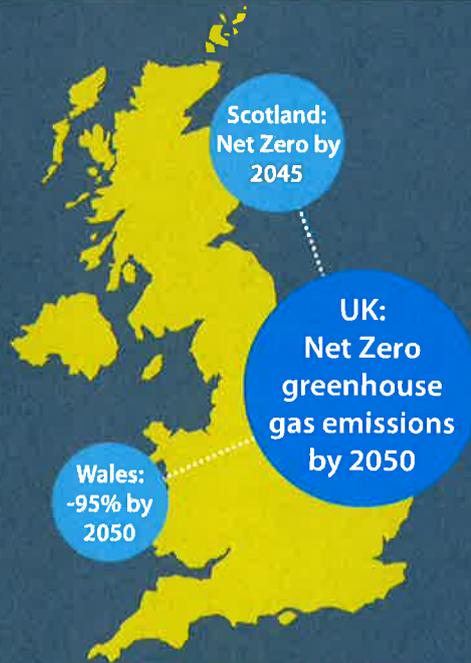
Annual costs of achieving net-zero emissions are between 1-2% of GDP in 2050, comparable to those estimated in 2008 for achieving an 80% target.



80% reductions in emissions relative to 1990 levels estimated 2008

100% reduction in emissions in 2050 estimated today

- ✓ Innovation has driven down the costs of key technologies, such as offshore wind & battery storage.
- ✓ Some costs to consumers, such as increased heating bills, can be offset by cheaper transport costs (thanks to a widespread shift to electric vehicles) and cheaper electricity bills (thanks to low cost renewable electricity).



There are many benefits of phasing out harmful emissions



For the economy

New green industries with new jobs and export opportunities for the UK.



For the individual

Quieter streets, cleaner air, less congestion.

Smarter cities and more comfortable homes.

Healthier lifestyles, with more active travel and healthier diets.



For the country

More biodiversity, cleaner water, more green space to enjoy.

Reduced global warming, avoiding climate damages like flooding.

Using known technologies, the UK can end its contribution to global warming by reducing emissions to Net Zero by 2050



Emissions today

This transition will require a concerted effort and action by all



Remaining emissions in 2050 must be offset

This page is intentionally left blank