How the UK benefits from EU action on climate change

by Faye Scott
How the UK benefits from EU action on climate change
Europe has shown global leadership on climate change. A fifth of its budget is allocated to tackling the issue by integrating it into all major spending areas, and disparate national interests have been overcome to agree ambitious emissions reductions plans. This has delivered tangible benefits for the UK in the form of jobs, growth and financial savings for households.

As decision makers on European policy, MEPs have a critical role in continuing to secure these benefits for the UK and the citizens they represent. They have a strong mandate for pursuing ambitious progress. Seventy seven per cent in the UK agree that fighting climate change and improving energy efficiency can boost the economy and deliver jobs.¹ As this policy insight demonstrates, that has been the case, with the renewable sector in particular growing rapidly due to clear targets set at the European level.

In the coming term, MEPs face a packed agenda of climate change and energy legislation, including agreeing Europe’s 2030 framework for tackling climate change, a review of the Energy Efficiency Directive, reform of the emissions trading system and input into Europe’s negotiating position for the 2015 global climate change talks. Here, we make a strong case for the benefits that ambitious European policy can deliver for member states; knowledge which should support MEPs in continuing to push for change in the decisions that lie ahead.
How the UK benefits from EU action on climate change

Introduction

Tackling climate change is a priority for Europe. It is one of five headline targets described in Europe 2020, the European Union’s ten year growth strategy, with a fifth of the EU’s 2014-20 budget allocated to climate related spending.2

As we demonstrate clearly here, it matters to the lives of all European citizens, including us in the UK. European leadership and policies on climate change deliver significant benefits for the UK through:

• new green jobs and supporting low carbon economic growth;
• direct consumer benefits: saving them money, providing cleaner air and increasing energy security.

This policy insight also provides an overview of current EU climate and energy policy, upcoming decisions for MEPs and a brief summary of recent climate science.

The need for a shared approach

In taking an ambitious approach to tackling climate change, the EU has recognised that transboundary problems require co-operation and shared solutions. Collectively, EU member states are the largest economy in the world.4 Their ambitious approach to climate change has had significant impact at the international level, both on global deals and on business standards and regulations.

EU member states negotiate at UN climate talks as a group and taking ambitious action at home has allowed them to have an influential role in global negotiations. They have also played a bridging role in forming agreements between other developed and developing countries, and their approach has strongly informed the positions of other countries. No European country could have this influence alone. As the EU makes timely progress on agreeing the 2030 package for climate and energy, the UK and other EU countries will be able to maintain this influence in the UN global negotiations, taking place in 2015.

At the present time, the 2020 climate and energy package is the core of Europe’s approach to climate change. Agreed by European leaders in 2008, it commits member states to achieving the following by 2020:

• 20 per cent reduction in EU greenhouse gas emissions relative to 1990;
• 20 per cent of energy consumption produced from renewables;
• non-binding 20 per cent improvement in energy efficiency.

“The EU has often been the driver of the world’s ambition – morally, politically, economically – in tackling climate change. There have been set backs, but its overall record is a model to others on the world stage.”

Mary Robinson and Archbishop Desmond Tutu3
How the UK benefits from EU action on climate change

Europeans want action on climate change:

90 per cent consider climate change a serious problem

80 per cent agree that fighting climate change and using energy more efficiently can boost the economy and jobs

70 per cent feel that reducing fossil fuel imports could benefit the EU economically

92 per cent think it is important for their governments to provide support for improving energy efficiency by 2030

The UK context: political and societal support for climate change action

Changes to individual policies have raised questions about the UK’s political commitment to tackling climate change. But the foundations for action remain strong. The 2008 Climate Change Act commits the UK government to a legally binding target of reducing emissions by 80 per cent below 1990 levels by 2050. Carbon budgets are set specifying the amount of greenhouse gases the UK can emit during five year periods. The first four budgets have been agreed, running up until 2027. During that time emissions should be reduced by 50 per cent relative to 1990 levels.

UK citizens also continue to see action on climate change as important. Climate change ranked second in a 2013 list of issues that people see as the most serious facing the world. It remained ahead of the economic situation, despite the recession. And 77 per cent in the UK agree that fighting climate change and improving energy efficiency can boost the EU economy and deliver jobs. The UK has also borne the brunt of extreme weather events over the winter of 2013–14 and public debate about the link to climate change and the need to adapt to its impacts has further raised awareness of the issue.

A clear public mandate for action remains firmly in place at both the EU and UK level. MEPs have a central role in acting on this by shaping EU climate change and energy policy, setting its level of ambition and helping to define the legislation to meet the targets.

“A clear majority of Europeans expect their politicians to tackle the climate challenge now… citizens understand that climate change did not go away while their governments were busy handling the economic crisis. It is not either growth and competitiveness or the climate. It is both, it has to be both.”

Connie Hedegaard, European commissioner for climate action

"A clear majority of Europeans expect their politicians to tackle the climate challenge now… citizens understand that climate change did not go away while their governments were busy handling the economic crisis. It is not either growth and competitiveness or the climate. It is both, it has to be both."

Connie Hedegaard, European commissioner for climate action
How the UK benefits from EU action on climate change

The EU is critical to UK jobs and growth

The EU’s 2020 climate and energy package has created green jobs, enabled the growth of low carbon industries and sharpened economic competitiveness. In the UK, the 20 per cent renewables target has had a dramatic impact:

- renewable energy generation grew by 125 per cent between 2007 and 2012\(^\text{10}\)
- by 2011 the industry was already worth £12.5 billion and supporting 110,000 jobs\(^\text{11}\)

The EU target was significant in driving this progress. In contrast, there has been far less progress on energy efficiency, which lacks a legally binding target. The 2014 review of the Energy Efficiency Directive is an opportunity for the EU to make stronger progress on this.

More broadly, the UK’s green economy is demonstrating impressive growth and proving itself resilient to recession. In 2011-12, a difficult year in the midst of the recession, green business was responsible for over a third of the UK’s economic growth.\(^\text{12}\) Targets set at the EU level and transposed into UK policy have been important drivers of this growth.

EU green jobs in numbers:

- 7.3 million people are employed in green sectors across the EU\(^\text{13}\)
- 25 per cent increase in employment in the renewables sector since the 2020 climate and energy policy package was agreed, currently employing 1.2 million people\(^\text{14}\)
- 70 per cent increase in solar pv employment between 2009 and 2010, employing 268,110 people\(^\text{15}\)
- 3 million people employed in the renewables sector by 2020, including 417,000 net new jobs\(^\text{16}\)
- Potential for 400,000 net new jobs by 2020 due to the 20 per cent energy efficiency target\(^\text{17}\)
- Potential for about 2 million new jobs in deep energy efficiency renovations by 2020\(^\text{18}\)

“There is not a choice to make between good economics and climate protection: cost effective climate action is indeed good economics.”
José Manuel Barroso, president of the European Commission\(^\text{9}\)
The value of a European approach for British businesses

Ambitious policy on climate change has made Europe a global low carbon technology market leader. In 2011 Europe secured 40 per cent of the world’s clean energy patents. By 2012, the EU had installed 44 per cent of the world’s renewable electricity capacity, excluding hydro. The EU’s ability to enable the sharing of research and expertise has been central to this, reducing production costs more rapidly than individual national efforts would allow. Production costs for solar have decreased by around 60 per cent over the past decade; and EU level co-operation is essential to developing and commercialising carbon capture and storage technology.

For business operations as a whole, EU policy creates a level playing field. It is more cost effective to comply with a single set of regulations than with different ones in every member state, and the EU’s approach is often reflected in standards and regulations agreed around the world. The common frameworks are especially relevant for UK businesses, as trade with fellow EU member states accounts for 54 per cent of exported goods and 40 per cent of exported services.

But this competitive edge is under threat, particularly from China. To tackle this, businesses see policy certainty, including targets for renewables and energy efficiency, as vital. Many have united to call for an ambitious 2030 climate and energy policy package that will continue to provide clarity of direction and protect the jobs and low carbon growth already created.

How UK citizens have benefited from EU policy:

By 2020, DECC estimates that the benefits of the Ecodesign Directive will have saved UK households £158 per year, or £26 billion to the UK as a whole.

The phasing out of incandescent lightbulbs will have saved UK households £83 per year, reducing the average household’s annual lighting cost from £102 per year to only £19.

The cost of driving a new diesel car will have decreased by almost half, from £1,486 in 1997 to £762 in 2020.
EU policies directly benefit UK citizens

Many UK citizens benefit from green job creation and economic growth. But policies agreed by the UK and others at EU level also deliver direct benefits to the UK in the form of financial savings, support in adapting to climate change and increased energy security.

Lower bills

There have been many benefits from the Ecodesign Directive, which creates consistent EU-wide rules for improving the energy performance of products such as light bulbs, refrigerators and dishwashers. This directive phases out very inefficient products and gradually increases the energy performance standards required of appliances. European legislation has also set binding targets to reduce emissions from new cars. Although this has been subject to extensive industry lobbying, it has still achieved significant reductions in carbon emissions from cars and increased fuel efficiency, saving consumers billions.

Cleaner air

EU policy has accelerated the clean up of power stations via a directive requiring them to install abatement technology to reduce the impact of their emissions. The health costs of coal fired power stations have been estimated to add a financial burden to the EU’s population of £35.2 billion a year. EU level efforts are essential to curbing these costs and the health impacts that lie behind them.

Adapting to climate change

Globally, the two costliest natural disasters of 2013 were in the EU, with serious incidences of damage from flooding and hail storms in Germany; The UK also bore the brunt of extreme weather with flooding and serious storms during the winter of 2013-14. Ed Davey MP, secretary of state for energy and climate change, commented that “the recent flooding in the UK is a testament to the devastation that climate change could bring to our daily lives”. The EU encourages its members to develop adaptation strategies and has an important role as a forum to discuss and manage transboundary challenges. Between 2005 and 2010 adaptation measures have increased by 150 per cent, much of this being down to EU action.

Energy security

Increasing interconnection between the energy systems of EU member states is one of the best ways to manage vulnerabilities and ensure a reliable and secure energy supply for the EU as a whole. As the percentage of UK and other EU energy generated from renewables continues to increase, interconnection can smooth intermittencies in generation. Better interconnection could save European consumers up to £33 billion per year. Continued progress on this is needed as the EU works through the complexities of creating a common energy policy.
How the UK benefits from EU action on climate change

**European leadership and the vital role of MEPs**

Europe has shown global leadership on climate change, allocating a fifth of its budget to tackling the issue by integrating it into all major spending areas, and by overcoming disparate national interests to agree ambitious emissions reductions plans. This has delivered tangible benefits for the UK. As the decision makers on European policy, MEPs have a critical role in continuing to secure these benefits for the UK and the citizens they represent.

With awareness of the benefits that flow from tackling climate change, and the impacts of extreme weather on their constituencies fresh in their minds, MEPs can act to secure commitment to policies that will not only benefit the UK and Europe, but also maintain the EU’s leadership and continue to raise the bar for action by other countries around the world.

**Key decisions for UK MEPs on climate and energy in the coming term**

1. **2030 framework for climate and energy policies**
   
   This is the most important decision for MEPs in the next parliament from 2014. It will set ambition for 2030, providing greater clarity on how the EU plans to achieve its 2050 goals, and provide regulatory certainty for investors. It is still in the preliminary stage before legislative proposals. In January 2014 the European Commission proposed a general framework and some 2030 targets. The European Parliament responded with a resolution calling for greater ambition. The Council of Ministers declared support for the Commission framework in principle and agreed to finalise its position by October 2014. After this, the Commission will produce legislative proposals which will go to MEPs for co-decision.

**European Commission proposals and the European Parliament resolution:**

<table>
<thead>
<tr>
<th></th>
<th>Commission proposals</th>
<th>Parliament’s resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Greenhouse gas emissions reduction, against 1990 levels</strong></td>
<td>40% Binding national targets</td>
<td>‘at least’ 40% Binding national targets</td>
</tr>
<tr>
<td><strong>Renewables</strong></td>
<td>27% Binding at the EU level but not at the national level</td>
<td>‘at least’ 30% Binding national targets</td>
</tr>
<tr>
<td><strong>Energy efficiency</strong></td>
<td>no target Addressed via the 2014 review of the energy efficiency directive</td>
<td>40% increase Binding national targets</td>
</tr>
</tbody>
</table>

This will start in the summer of 2014 and is expected to lead to new legislative proposals before November 2014, which MEPs will vote on. As set out in the table above, they have already expressed support for binding national targets on energy efficiency, via the February 2014 resolution on the 2030 climate and energy policy package. In April 2014 Green Alliance published a policy insight making the case for an ambitious approach to this review.33

3. **Structural reform of the EU Emissions Trading Scheme**

This will be reviewed in 2014. The scheme currently has a surplus of permits so it is unable to incentivise emissions reductions as the carbon price remains very low. The process and timescale for reform has not yet been agreed, but it will involve MEPs, possibly through co-decision.

4. **The UN Framework Convention on Climate Change global climate deal**

From now until December 2015 the EU will take part in negotiating this. If Europe agrees an ambitious 2030 climate and energy policy package it will be well placed to take a leadership role in these negotiations. MEPs will be consulted on the EU’s position and proposal for the international agreement.

5. **The EU’s budget review**

The EU budget allocates at least 20 per cent of all spending to supporting climate action and will be reviewed by MEPs in 2016, which may include consideration of legislation to revise it.
How the UK benefits from EU action on climate change

Existing European climate and energy policy

The 2020 climate and energy policy package
This is the core of Europe’s approach to climate change. Agreed by European leaders in 2007, it commits EU member states to:

- 20 per cent reduction in EU greenhouse gas emissions relative to 1990, including binding targets for member states: by 2012 the EU had reduced emissions by 18 per cent relative to 1990 and is expected to have reduced them by 24 per cent by 2020.34
- 20 per cent of EU energy consumption produced from renewables, including a binding target for member states: the share of energy produced by renewables reached 13 per cent in 2012 and is expected to rise to 21 per cent by 2020.35
- Non-binding 20 per cent improvement in the EU’s energy efficiency: this is unlikely to be met. By 2011 only 9.6 per cent energy savings had been made across the EU and assessments of the national targets suggest that they will not close the gap to achieve a 20 per cent reduction overall.36

The EU Emissions Trading Scheme (EU ETS)
This is central to Europe’s efforts to tackle climate change. It is an international system for trading greenhouse gas emission allowances, covering 45 per cent of the EU’s greenhouse gas emissions and working on a ‘cap and trade’ principle.37

The volume of greenhouse gases that companies within the system can emit each year is capped, and the cap is reduced each year. Companies can trade their allowances, buying or selling them if they are emitting more or less than their allowances permit. They can also purchase credits from emission saving projects around the world. By putting a price on emissions, the system should drive reductions and promote investment in clean, low carbon technologies.

By 2020, emissions from EU ETS sectors will be 21 per cent lower than in 2005, but the system is in need of reform.38 Due to the recession, emissions fell more than expected. This created a surplus of allowances, whereas the system requires a scarcity to incentivise emissions reduction. In the short term, the European Commission is postponing the auction of some allowances and structural reform will be considered in 2014.

Emissions that are not included in the EU ETS
Member states also have a binding national target for these, such as from housing, agriculture, waste and transport. Targets cover the period 2013-20 and were agreed via an ‘effort sharing’ approach. This means wealthier states commit to greater reductions, while states that have further development ahead of them are allowed agreed increases in emissions. The UK has a target of reducing non-EU ETS emissions by 16 per cent.39

Carbon capture and storage (CCS)
The EU aims to support the safe development of this technology. CCS enables carbon dioxide to be captured as it is emitted from power stations and stored in the ground. It has the potential to account for 15 per cent reductions in CO₂ emissions in 2030.40 The EU has an important role in enabling co-operation to commercialise CCS.
A brief overview of climate science

The earth’s atmosphere has a natural greenhouse effect, which lets in sunlight but traps heat in the atmosphere. Human activity has caused a significant increase in the amount of greenhouse gases trapped in the atmosphere, enhancing the natural greenhouse effect and warming the earth. Greenhouse gases include carbon dioxide (CO$_2$), methane and nitrous oxide.

The primary human activities that increase CO$_2$ levels include burning fossil fuels (coal, oil and gas) and land use changes such as deforestation. Emissions of methane and nitrous oxide have also increased due to agricultural activity. The interaction of these gases with solar radiation, trapping heat close to the earth’s surface, causes changes to the cycling of energy through the atmosphere and oceans, leading to the phenomenon known as climate change.

The International Panel on Climate Change (IPCC) states that “Warming of the climate system is unequivocal, human influence on the climate system is clear, and limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.”

A range of indicators such as surface temperatures, sea level rise and the extent of Arctic sea ice provide clear evidence of warming.

The latest IPCC report sets out the expected impacts from climate change and extreme weather. They will include alteration of ecosystems, disruption of food production, disruption of water supplies and damage to infrastructure and settlements.

Expected impacts:

- Sea level rises will lead to submergence, coastal flooding and coastal erosion.
- Impacts on urban areas will include heat stress, extreme precipitation, flooding, landslides, air pollution, drought and water scarcity.
- Health impacts will include increased mortality during periods of extreme heat, increased risks from food and water borne diseases and increased likelihood of under nutrition resulting from diminished food production in poor regions.
- Rural and coastal livelihoods will be at risk due to insufficient access to water and reduced agricultural productivity, and from impacts on marine and coastal ecosystems.
- A large number of both terrestrial and freshwater species are at risk of extinction, alongside changes to their geographic range, migration patterns and interaction.
- All aspects of food security are potentially affected by climate change, including access, utilisation and price stability, with negative impacts on major crops (wheat, rice, and maize) in tropical and temperate regions.
- The quality and quantity of water resources will be affected by changing precipitation patterns or melting snow and ice.

These impacts are projected to hinder economic growth, make poverty reduction more difficult, erode food security, and prolong existing and create new poverty traps, the latter occurring particularly in urban areas and emerging hunger hotspots.
Endnotes

1 European Commission, March 2014, Special Eurobarometer 409 climate change
2 Ibid
5 European Commission, press release, 3 March 2014, 'Turn to climate action for a job-rich economic recovery Europeans say'
6 All figures from European Commission, March 2014, Special Eurobarometer 409 climate change
8 European Commission, March 2014, Special Eurobarometer 409 climate change
9 European Commission, press release, 3 March 2014, Turn to climate action for a job-rich economic recovery Europeans say
11 Renewable Energy Association, press release, 23 April 2012, 'Report on employment and skills in the UK renewable energy sector to be launched with Greg Barker'
12 CBI, 2012, The colour of growth: maximising the potential of green business
13 Sustainlabour, 2013, Green jobs and related policy frameworks: an overview of the European Union. Green sectors include renewable energies, energy efficiency, retrofitting, organic agriculture, waste management and recycling
14 For 25 per cent increase see, Sustainlabour, 2013, Green jobs and related policy frameworks: an overview of the European Union; For 1.2 million figure see, European Commission, January 2014, Energy economic developments in Europe
11 Sustainlabour, 2013, Green jobs and related policy frameworks: an overview of the European Union
18 H Van Rompuy, 9 October 2013, RE Day 2013 – Herman Van Rompuy video address, Renovate Europe; video available at www.renovate-europe.eu/
19 European Commission, January 2014, Energy economic developments in Europe
20 European Commission, 22 January 2014, 'Policy framework for climate and energy in the period from 2020 to 2030', Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions
21 Ernst & Young, 2012, Renewable energy country attractiveness indices
22 F Faes-Cannito, G Gambini and R Istatkov, 2012, External trade, Eurostat, European Commission
23 Coalitions such as the Prince of Wales’ Corporate Leaders Group, which supports a 40 per cent emission reduction target for 2030, include big names such as Unilever, Shell, BT, EDF Energy, Philips, Lloyds, Coca-Cola, GlaxoSmithKline, Heathrow, British Sky Broadcasting, Tesco, Virgin Group and Vodafone.
24 Household bill estimate from DECC, 2011, ‘Estimated impact of energy and climate change policies on average household energy bills in year 2020’. For £26 billion figure see, Defra, 2009, Saving energy through better products and appliances

25 Assumes an incandescent 60W lightbulb is replaced with an 11W compact fluorescent lamp (CFL), it is used for three hours a day and electricity costs 12p/kWh. We also assume a typical house has 13 incandescent lightbulbs as found in EST, 2012, Powering the nation

26 Figure based on 2011 price for petrol (132.5 p/litre) and diesel (141.1p/litre) assuming a travel of 15,000km. Average new car fuel consumption for 1997 and 2011 taken from Department for Transport Statistics, 2013, www.gov.uk/government/uploads/system/uploads/attachment_data/file/89643/env0103.xls. The EU’s 2015 CO₂ emissions reduction target (for vehicles) is approximately equivalent to 5.6 litres per 100km (l/100km) of petrol or 4.9 l/100km of diesel. The 2020 target equates approximately to 4.1 l/100km of petrol or 3.6 l/100km of diesel.

27 Health and Environment Alliance, press release, 7 March 2013, ‘Coal’s health bill reaches €43 billion a year’

28 Munich Re, press release, 7 January 2014, ‘Overall picture of natural catastrophes in 2013 dominated by weather extremes in Europe and Supertyphoon Haiyan’

29 Department of Energy & Climate Change, press release, 31 March 2014, ‘Secretary of State Edward Davey’s statement in response to the IPCC Working Group 2 report on climate change’

30 Presentation by E Massey, November 2010, ‘Assessing adaptation in the EU: an update’

31 Booz & Company, 20 July 2013, Benefits of an integrated European energy market

32 European Parliament, press release, 5 February 2014, ‘MEPs want binding 2030 goals for CO₂ emissions, renewables and energy efficiency’

33 Dr K Watts and F Metternich, 2014, Why EU action on energy efficiency is needed, Green Alliance

34 European Commission, 22 January 2014, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, ‘Policy framework for climate and energy in the period from 2020 to 2030’


38 European Commission, October 2013, The EU Emissions Trading System (EU ETS)


41 Intergovernmental Panel on Climate Change, press release, 30 January 2014, ‘IPCC publishes full report Climate Change 2013: The Physical Science Basis’

42 All example impacts are taken from C Field et al, 31 March 2014, Climate change 2014: impacts, adaptation, and vulnerability summary for policymakers, Intergovernmental Panel on Climate Change
How the UK benefits from EU action on climate change


This policy insight is produced under Green Alliance’s European Climate Leadership programme.

We are grateful to the European Climate Foundation for supporting this work.

Author: Faye Scott

Green Alliance
Green Alliance is a charity and independent think tank, focused on ambitious leadership for the environment. With a track record of over 30 years, Green Alliance has worked with the most influential leaders from the NGO and business communities. Green Alliance’s work generates new thinking and dialogue, and has increased political action and support for environmental solutions in the UK.

© Green Alliance, May 2014

Green Alliance’s work is licensed under a Creative Commons Attribution-Noncommercial-No derivative works 3.0 unported licence. This does not replace copyright but gives certain rights without having to ask Green Alliance for permission. Under this licence, our work may be shared freely. This provides the freedom to copy, distribute and transmit this work on to others, provided Green Alliance is credited as the author and text is unaltered. This work must not be resold or used for commercial purposes. These conditions can be waived under certain circumstances with the written permission of Green Alliance. For more information about this licence go to http://creativecommons.org/licenses/by-nc-nd/3.0/