

CLIMATE CHANGE LEGISLATION IN

UNITED KINGDOM

AN EXCERPT FROM

The 2015 Global Climate Legislation Study **A Review of Climate Change Legislation in 99 Countries**



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United Kingdom

Legislative Process

Parliament is the centre of the political system in the United Kingdom. It is the supreme legislative body and the government is drawn from and answerable to Parliament. Parliament is bicameral, consisting of the House of Commons and the House of Lords.

Draft bills are issued for consultation before being formally introduced to Parliament. A bill is a proposal for a new law, or a proposal to change an existing law that is presented for debate before Parliament. Bills are introduced in either the House of Commons or House of Lords for examination, discussion and amendment. When both Houses have agreed on the content of a bill, it is presented to the monarch for Royal Assent. Once Royal Assent is given, a bill becomes an Act of Parliament and is law. An Act of Parliament creates a new law or changes an existing law.

Government White Papers set out details of future policy on a particular subject. They allow the government to gather feedback before it formally presents the policies as a bill. The last general election was in 2010. The next election is scheduled to take place on 7 May 2015. Seats in the House of Lords are unelected appointments, and are a mix of lifetime appointments and hereditary peerages.

Due to the devolution of policy making, the administrations for Scotland, Wales and Northern Ireland are individually responsible for implementing some aspects of UK climate change strategy. However, this chapter focuses on legislation passed by Parliament and policies proposed by the UK government.

Approach to Climate Change

The UK began to introduce policies to tackle GHGs emissions in the early 2000s. In 2001, it introduced a Climate Change Levy that applies to electricity, gas, solid fuel and liquefied gases used for lighting, heating and power in the business and public sectors. Complementing the levy, under Climate Change Agreements that took effect in 2001, energy intensive business users are allowed to receive a discount from the levy if they meet energy efficiency or carbon saving targets. This measure was extended in time and sectoral coverage in 2004 and 2007.

In 2006, the Climate Change Programme outlined all policies and programmes to tackle climate change, including several measures relating to energy efficiency. The measures in the 2006 Programme were projected to reduce CO₂ emissions to 15–18% below 1990 levels by 2010 and work towards the longer term goal to reduce CO₂ emissions by 60% by 2050, as set out in the Energy White Paper (2003). In 2006, the Climate Change and Sustainable Energy Act became law, placing an obligation on the Department for Environment, Food and Rural Affairs

(Defra) to report to Parliament on GHG emissions and actions taken by government to reduce these emissions. The first report was put to Parliament in 2007. The legislation also established a scheme to promote national targets for micro-generation and provided for reporting on the energy efficiency of residential accommodation.

These policies, together with the elevation of climate change as a political issue during and after the 2005 G8 Summit, prepared the ground for the UK's flagship legislation on climate change – the 2008 Climate Change Act. This law, passed with the support of all major political parties puts the UK's emissions reduction target into legislation (toughened by Parliament to “at least 80% below 1990 levels by 2050”), created five-yearly carbon budgets to help ensure a cost-effective trajectory towards the long-term goal, and set up the independent Committee on Climate Change to advise the government on carbon targets and monitor progress in meeting them. It was the first law in the world to set statutory GHG reduction targets.

The first three five-year carbon budgets (for 2008-2012, 2013-2017 and 2018-2022) were set in law in 2009. In line with the requirements set out in the Climate Change Act, in 2011 the government proposed, and Parliament approved, the level of the fourth carbon budget, from 2023–2027. The level was set at 1,950 Mt CO₂-equivalent over five years, in line with the Committee on Climate Change's recommendations, putting into law a target of a 50% reduction from 1990 levels by 2027 (consistent with the target to reduce emissions by at least 80% by 2050). These plans were re-affirmed in July 2014.

Another important backbone of climate policy is the transposition in national legislation of EU Directives. Most notable is the EU Emission Trading Scheme, which covers installations responsible for around 50% of GHG emissions in the EU and puts a price on carbon. Other EU Directives include the Renewables Directive, the Energy Performance of Buildings Directive, the Industrial Emissions Directive and the EU Eco-Design Directive.

The government has introduced a number of laws, policies and measures to support the achievement of the targets contained in the Climate Change Act. The 2011 Carbon Plan (which replaced the 2009 Low Carbon Transition Plan) outlines plans to ensure the UK meets its emission reduction targets and its first four 5-year carbon budgets. In 2012, a Green Investment Bank was launched, with an initial capitalisation of GBP3bn (USD4.7bn).

The 2011 Energy Act has three principal objectives: tackling barriers to investment in energy efficiency (including via the Green Deal that provides up-front finance for investments in energy efficiency in the home; enhancing energy security; and enabling investment in low carbon energy.

The 2013 Energy Act, implements government plans for Electricity Market Reform (EMR). EMR will help incentivise up to GBP110bn (USD180.1bn) of

further investments required over the coming decade to the UK's ageing energy infrastructure with a more diverse and low-carbon energy mix to help ensure that the UK has future security of electricity supply and meets its climate and renewables targets in a way that minimises costs to consumers. Key elements of the reform package include:

- The introduction of Contracts for Difference (CfDs) to incentivise long-term low-carbon energy investments
- The introduction of a Capacity Market, to ensure security of electricity supply by providing regular payments to capacity providers (both demand and supply), in return for which they must be available to produce energy (or reduce demand) when the system is tight, or face penalties
- An Emissions Performance Standard (EPS) set at 450g CO₂/kWh to reinforce the requirement that no new coal-fired power stations are built without CCS, but also to enable short-term investment in gas

The government monitors the effectiveness of climate change policies through annual reports to Parliament and the Committee on Climate Change's annual review of progress towards meeting carbon budgets and the 2050 targets. The sixth CCC review published in July 2014 notes good progress towards implementing a number of policies and towards the development of new policies – notably improved fuel efficiency of new cars, investment in wind generation, and development of EMR. However, there was limited progress in other areas – such as energy efficiency improvements in the commercial and industrial sectors, uptake of electric vehicles and heat pumps, and demonstration of carbon capture and storage (CCS) – and the underlying pace of emissions is currently insufficient to meet future carbon budgets.

Carbon Pricing

The UK, as a Member State of the European Union, participates in the EU's flagship policy to reduce GHG emissions and encourage investment in low carbon energy – the EU Emissions Trading System (EU ETS). The legal framework for the EU ETS is set out in the EU ETS Directive and UK GHG Emission Trading Scheme Regulations.

The UK has around 1,000 EU ETS installations, accounting for around 50% of the emissions reductions target between 2013 and 2020. The EU ETS therefore plays a key part in ensuring the UK complies with its legally binding carbon budgets.

In 2013, given the relatively low price of carbon in the EU ETS and the resulting lack of a strong incentive to invest in low carbon technologies, a carbon price floor (announced in the 2011 Budget) was introduced. The price was initially set at GBP16 (USD25) per tonne rising to GBP30 (USD47) per tonne in 2020. The aim is to give investors greater certainty and reduce the risk of low carbon investments. However, in March 2014 it was announced that the price floor will be frozen from April 2016 at GBP18 (USD28) per tonne for the remainder of the decade, which may lessen renewables investment incentives.

Energy Supply

The Renewables Obligation (RO), introduced in 2002, has been the main market-based mechanism for supporting large-scale generation of renewable electricity in the UK. The RO is being replaced by Contracts for Difference (CfDs). The RO system will close to new capacity in March 2017, but facilities built under the RO scheme before that date will continue to be eligible for Renewable Obligation Certificates (ROCs) until the scheme closes in 2037. The RO obliges licensed electricity suppliers to source a specified and annually increasing proportion of their electricity sales from renewable sources, or pay a penalty.

CfDs are long-term contracts to provide stable and predictable incentives for companies to invest in low-carbon electricity generation, including renewables, nuclear and carbon capture and storage. The first early CfDs (in the form of investment contracts) were signed in April 2014, and the first allocation round for CfDs under the enduring regime opened in October 2014, with the round due to end in April 2015. The first capacity auction took place in December 2014, for delivery of capacity in winter 2018-2019 (subject to state aid approval).

The 2004 Energy Act provides the framework for the development of offshore wind and other marine renewable energy sources outside territorial waters. The Act implemented commitments relating to energy efficiency, such as raising building and product standards, and created an Energy Efficiency Action Plan. The 2008 Energy Act strengthened the Renewables Obligation to increase the diversity of the electricity mix and created the Renewable Heat Incentive: allowing the Minister to establish a financial support programme for renewable heat generated anywhere, from large industrial sites to individual households. The Act created regulation that enables private sector investment in CCS projects.

The 2010 Energy Act includes provisions on introducing a new CCS Incentive to support the construction of four commercial-scale CCS demonstration projects in the UK, and the retrofit of additional CCS capacity to these projects should it be required. In August 2014 a scoping paper set out possible next steps for CCS development, including financial support for investments and supporting technical developments. It also requires the government to prepare regular reports on progress on the decarbonisation of electricity generation in Britain.

The UK Renewable Energy Strategy 2009, the UK Renewable Energy Roadmap 2011 and the 2012 and 2013 Roadmap updates outline how the UK will meet its legally binding target to ensure 15% of energy comes from renewable energy sources by 2020. The 2009 Strategy also created an Office for Renewable Energy Deployment (ORED) within DECC. The Renewable Energy Strategy introduced payment schemes to support the production of renewable heat and small-scale clean electricity generation by households, industry, businesses and communities. The Roadmap sets out key actions to support eight renewable technologies, including measures to reduce the cost of offshore wind and

financial support for marine energy innovation. Since 2010, feed-in tariffs (FITs) are available for small-scale renewable electricity installed by householders, businesses and communities, even if the electricity is consumed on-site.

Several incentives exist to promote the production of biofuels. The Bio-energy Capital Grants Scheme supports biomass-fuelled heat, and combined heat and power projects in the industrial, commercial and community sectors in England. Additionally, a reduced excise duty rate was introduced for biodiesel in 2002 and bioethanol in 2005, set at GBP0.20 (USD0.31) lower than the rate applicable to diesel and unleaded petrol. The 2008 Renewable Transport Fuels Obligation (RTFO) requires transportation fuel suppliers to ensure a set percentage of their sales are from a renewable source. The Obligation also requires suppliers to publicly report on the carbon savings and sustainable production of biofuels supplied. It aligns with the EU Directive on the promotion of biofuels and renewable fuels for transportation. Regional schemes include the Energy Crop Scheme England introduced in 2000.

The government considers nuclear energy as a key part of the future energy mix with industry setting out plans to develop around 16GW of new nuclear capacity. In 2013 the Minister for Energy and Climate Change gave development planning consent for a new nuclear project in Somerset, paving the way for the construction of the first new nuclear power station for 20 years.

Energy Demand

The UK has extensive legislation and policies addressing energy efficiency and promoting a low carbon energy network. The Energy Saving Trust provides advice, information and incentives for sustainable energy use to the public. In 2001 the Carbon Trust, an independent, not-for-profit company was set up by government to promote energy efficiency in non-domestic sectors. The Energy Efficiency Commitment (EEC) was established in 2002, followed by the Carbon Emissions Reduction Target (CERT) and the Community Energy Saving Programme (CESP) in 2008, which were in turn replaced by the Energy Company Obligation (ECO) and the “Green Deal” in 2013. The ECO and Green Deal schemes work together to promote and support the installation of energy-saving measures – they help households insulate their homes and upgrade their heating systems with low carbon alternatives. The Green Deal helps householders to understand how to use energy more efficiently, and includes the option of borrowing money to help fund the improvements, which they can pay back from savings on their energy bills.

In 2005, the government introduced measures to make all buildings more efficient, in line with the European Directive for the Energy Performance of Buildings (EPBD). The Planning and Energy Act (2008) enables planning authorities in England and Wales to set requirements for energy use and energy efficiency in local plans and to establish their own requirements for a proportion of energy used in development plans to come from renewable sources, to be low carbon or to comply with energy efficiency standards that exceed the

requirements of existing building regulations. Several regional schemes also exist, such as the HEES Wales scheme launched in 2000; it provides grants for heating and insulation improvements for owner-occupiers and for tenants.

The CRC Energy Efficiency Scheme (formerly known as the Carbon Reduction Commitment), which started in 2010, aims to improve energy efficiency and cut emissions in large public and private sector organisations. The scheme puts a price on carbon emissions from energy use, incentivising participants to make savings on energy bills through improved energy efficiency. In CRC, organisations buy allowances equal to their annual emissions at a fixed price. In 2014 the government simplified the scheme, and incentivised the uptake of onsite renewable self-supplied electricity.

Additionally, the government approved funding of GBP900,000 (USD1.41m) in 2013-2014 to fund the creation of the Big Energy Saving Network, whereby energy advisers help consumers to reduce their energy costs by switching energy suppliers and taking advantage of energy efficiency offers. The government launched the 2014-2015 Big Energy Saving Network in late 2013, with £1m in funding.

In 2013 the government launched a consultation on the Energy Savings Opportunity Scheme (ESOS) to help large enterprises to identify cost-effective energy efficiency measures. The government is keen to go further to capture greater energy efficiency and published “The Energy Efficiency Opportunity in the UK” in 2012, outlining areas for further work in this area, building on the EU’s Energy Efficiency Directive and existing domestic policies.

REDD+ and LULUCF

Forestry, the largest source of carbon sequestration, is a devolved matter. That is, only English forests are managed by the national government. Elsewhere responsibility rests with the devolved governments of Scotland, Wales and Northern Ireland, each of which has adopted targets and incentive schemes to increase forest cover. Scotland’s Rural Development Programme also includes provisions on peatland restoration. For England, targets on forest cover are contained in the 2013 Government Forestry and Woodland Policy Statement. The main UK-wide policy is the UK Woodland Carbon Code, a voluntary scheme established in 2011.

Internationally, the UK is supporting REDD+ financially as part of its broader commitment to international climate finance through the International Climate Fund.

Transportation

To meet the UK’s carbon budgets, the government supports the deployment of ultra-low emission vehicles (ULEVs). By December 2014 over 7,000 charging points had been provided, with another 5,000 charging points provided nationally by the private sector as of June 2013. The Plug-in-Car Grant Scheme

offers a grant of 25% of the vehicle price, up to a value of GBP5,000 – USD 7,834) while the Plug-in-Van Grant Scheme offers a grant of 20% of the vehicle price, up to a value of GBP8,000 (USD12,535). By September 2014 there were over 17,000 grant-funded ULEVs in the UK.

The GBP5,000 car grant incentive will continue until at least 50,000 cars have been sold or until 2017 (whichever is sooner), to be followed by annual reviews. The scope of the Plug-in-Van Grant Scheme may be broadened due to low uptake. The government will also make GBP35m (USD54.8m) available to 2 to 4 cities that are supporting ULEV adoption, GBP20m (USD31m) to incentives local authorities to support the adoption of ULEV taxi fleets, GBP30m (USD47m) to support the expansion of ULEV buses, and GBP32m (USD50m) for expanding charging infrastructure.

Adaptation

The framework for adaptation is contained in the 2008 Climate Change Act. The Act established an Adaptation Sub-Committee to the statutory Committee on Climate Change, made up of experts from the fields of climate change, science and economics, which advises the government on national adaptation matters.

The Act also requires periodic Climate Change Risk Assessments (CCRAs) the first of which was published in 2012. The report assessed the main risks and opportunities facing the UK over the 80 subsequent years, and sets out the main priorities for adaptation. The assessment distilled approximately 700 potential risks down to more than 100 for detailed review and it is due to be repeated every five years.

In 2013 the UK launched its National Adaptation Programme (NAP), a rolling process that formulates the government's response to the risks identified in the CCRA. The NAP looks at the built environment; infrastructure; healthy and resilient communities; agriculture and forestry; natural environment; business and local government. The NAP is due to be repeated every five years, and the independent Adaptation Sub-Committee is responsible for assessing implementation.

The government has asked organisations primarily in the energy, transport and water sectors to report on the current and future predicted impacts of climate change on their organisations, and on their proposals for adapting to climate change. A first round of reporting was completed in 2012, with over 100 organisations reporting, and a second round of voluntary reporting commenced in 2013 and is due to finish in 2016.

The Water Act 2014, while not explicitly motivated by climate change issues, contains measures that contribute to climate change adaptation. These include measures to increasing resilience of water supplies to natural hazards such as droughts and floods and bringing forward measures to address the availability and affordability of insurance for households at high flood risk. The Act allows

for the government to establish regulations that would require insurers to provide coverage against risks arising from flooding.

United Kingdom: Legislative Portfolio

Name of Law	Energy Act 2013
Date	18 December 2013 (amended 2014)
Summary	<p>The Act is focused on Energy Market Reform (EMR). It is a package of measures which will help incentivise up to GBP110bn (USD172bn) of further investment required over the coming decade to update the UK's ageing energy infrastructure with a more diverse and low-carbon energy mix to help ensure future security of electricity supply, and to meet climate and renewables targets in a way that minimises costs to consumers. Key elements of the reform package include:</p> <ul style="list-style-type: none">• The introduction of Contracts for Difference (CfDs), long-term contracts to provide stable and predictable incentives for companies to invest in low-carbon electricity generation, including renewables, nuclear and carbon capture and storage• The introduction of a Capacity Market, to ensure security of electricity supply; It provides regular payments to capacity providers (both demand and supply), in return for which they must be available to produce energy (or reduce demand) when the system is tight, or face penalties• A Carbon Price Floor (established in April 2013) of GBP16 (USD25) per tonne from 2013 rising to GBP30 (USD47) per tonne in 2020 to reduce investor uncertainty and provide an incentive to invest in low carbon generation now• An Emissions Performance Standard (EPS) set at 450g CO₂/kWh to reinforce the requirement that no new coal-fired power stations are built without CCS, but also to enable short-term investment in gas.

Name of law	Finance Act 2011
Date	1 January 2012 (carbon price floor introduced on 1 April 2013)
Summary	<p>The primary legislation for the introduction of a Carbon Price Floor (CPF).</p> <p>Supplies of coal, gas and liquefied petroleum gas (LPG) used in most forms of electricity generation become liable to newly created Carbon Price Support (CPS) rates of climate change levy (CCL), which are different from the main CCL rates levied on consumers' use of these commodities (and electricity). The amount of fuel duty reclaimable on oil used in electricity generation is adjusted to establish new CPS rates of fuel duty.</p>

Name of law	Energy Act 2011
Date	1 January 2012 (amended 2014)
Summary	<p>The Act has three principal objectives: tackling barriers to energy efficiency; enhancing energy security; and enabling investment in low carbon energy supplies.</p> <p>Requires the government to prepare regular reports on progress on the decarbonisation of electricity generation in Britain and the development and use of CCS.</p> <p>Includes measures to improve energy security and to enable low carbon technologies.</p> <p>Removes barriers to the reuse of existing capital assets for CO₂ storage and transportation where they are suitable; allows National Parks and Broads Authority to generate and sell renewable electricity within specific constraints; extends the Renewable Heat Incentive primary powers in the Energy Act 2008 to cover Northern Ireland enabling them to make their own regulations to incentivise renewable heat.</p> <p>Creates a new financing framework – “The Green Deal” – to enable the provision of fixed improvements to the energy efficiency of households and non-domestic properties which can be funded by a charge (offset by savings) on energy bills.</p> <p>It also includes provisions to ensure that, from April 2016, private residential landlords will be unable to refuse a tenant’s reasonable request for consent to energy efficiency improvements, where a finance package, such as the Green Deal and/or Energy Company Obligation (ECO) is available. Provisions in the Act also provide for powers to ensure that, from 2018, it will be unlawful to rent out residential or business premises that do not reach a minimum energy efficiency standard.</p> <p>The law also enables the Minister to create a new Energy Company Obligation to take over from the Carbon Emissions Reduction Target [CERT] and Community Energy Saving Programme [CESP]), which expire at the end of 2012, and to work alongside the Green Deal finance offer by targeting appropriate measures at those households which are likely to need additional support, including those on low incomes and hard to treat housing.</p> <p>The Act amends the smart meters powers in the Energy Act 2008 to allow government to direct the approach to the rollout of smart meters until 2018 and to enable the Minister to make changes to transmission licences to ensure the effective introduction of the new central data and communications arrangements to support all smart meters; amends the Energy Performance of Buildings Regulations 2007, to enable the removal of unnecessary restrictions on access to data; establishes powers for the Minister to require energy companies to provide information on the cheapest tariff on energy bills.</p>

Name of law	Feed-in Tariffs for renewable electricity
Date	1 April 2010 (amended 2012, 2014)
Summary	<p>Offers feed-in tariffs (FITs) for small-scale low-carbon electricity installed by householders, businesses and communities, even if the electricity is consumed on-site. Additional payment is provided for electricity fed into the grid.</p> <p>FITs vary according to technology, last between 10 and 25 years and are adjusted for inflation. They apply to hydro, anaerobic digestion, wind and solar PV technologies under 5MW, and a pilot scheme for micro Combined Heat and Power (CHP) has been launched.</p> <p>Generators with installations of 50kW or less must be installed and accredited by the Microgeneration Certification Scheme (MCS), an independent certification scheme.</p> <p>Installations with capacities greater than 50kW will need to contact Ofgem and seek accreditation through a process similar to the Renewables Obligation (RO).</p>

Name of law	Energy Act 2010
Date	1 January 2011
Summary	<p>The Act includes provisions on introducing a new CCS Incentive to support the construction of four commercial-scale CCS demonstration projects in the UK, and the retrofit of additional CCS capacity to these projects should it be required at a future point.</p> <p>Requires the government to prepare regular reports on the progress of the decarbonisation of electricity generation in Britain and the development and use of CCS.</p>

Name of law	Carbon Reduction Commitment Energy Efficiency Scheme
Date	April 2010 (amended 2013, 2014)
Summary	<p>The Scheme (formerly known as the Carbon Reduction Commitment) is a mandatory climate change and energy saving scheme. It aims to improve energy efficiency and cut emissions in large public and private sector organisations, which are responsible for around 10% of the UK's emissions.</p> <p>The Scheme encourages organisations to develop energy management strategies that promote a better understanding of energy usage. It provides a financial incentive to reduce energy use by putting a price on carbon emissions from such use and also allows participants to make savings on energy bills through improved energy efficiency. In CRC, organisations buy allowances equal to their annual emissions.</p> <p>The scheme is administered by the Environment Agency, which publishes details of all participants' emissions each year.</p>

Name of law	Climate Change Act
Date	26 November 2008
Summary	<p>The Act provides a long-term framework to improve carbon management, to help the transition to a low carbon economy, encourage investment in low carbon goods and provide an international signal. The Act establishes a legally binding target of at least an 80% cut in GHG emissions by 2050, against a 1990 baseline. It also creates 5-yearly "carbon budgets" as a pathway to meet the long-term target.</p> <p>The Act establishes a legally binding target of at least an 80% cut in GHG emissions by 2050, to be achieved through action in the UK and abroad. Ministers must report on the policies implemented to meet carbon budgets and produce an annual report to Parliament on the status of UK emissions.</p> <p>The Committee on Climate Change (CCC) – a new independent, expert body to advise the government on the level of carbon budgets and on progress in meeting these budgets – submits annual reports to Parliament on progress towards targets and budgets. The government must respond to the reports, ensuring transparency and accountability.</p> <p>The Act sets up a carbon budgeting system that caps emissions over 5-year periods, with three budgets set at a time, to help the UK stay on track for its 2050 target. The first three carbon budgets run from 2008–2012, 2013–2017 and 2018–2022, and were set in law in May 2009. The fourth carbon budget, for 2023–2027 approved by parliament in 2011 and reviewed in 2014, puts into law a target to reduce emissions by 50% from 1990 levels by 2025 (the midpoint of the budget period).</p> <p>The government must report to Parliament its policies and proposals to meet the budgets and set a limit on the purchase of carbon credits for each budgetary period – for the first budgetary period, a zero limit was set in May 2009, excluding units bought by UK</p>

participants in the EU Emissions Trading System. For the second budget period, a limit of 55MtCO₂e was set. The Act also gives powers to introduce domestic emissions trading schemes more quickly and easily through secondary legislation – the first use has been to introduce the Carbon Reduction Commitment Energy Efficiency Scheme.

The Act introduced measures on biofuels and powers to introduce pilot financial incentive schemes in England for household waste.

The Act requires, by the end of 2012, the inclusion of international aviation and shipping emissions in the net carbon account, or an explanation to Parliament why not. The government announced in December 2012 that this decision would be deferred, recognising uncertainty over the international framework for reducing aviation emissions and particularly the treatment of aviation within the EU ETS.

The government must report at least every 5 years on the risks to the UK of climate change, and publish a programme setting out how these will be addressed. The first such climate change risk assessment was published in 2012. The Act also introduces powers for government to require public bodies and statutory undertakers to carry out their own risk assessment and make plans to address those risks.

The Act introduces an Adaptation Sub-Committee of the Committee on Climate Change, providing advice to, and scrutiny of, the Government's adaptation work.

Name of law	Energy Act 2008
Date	2008
Summary	The Act enables the introduction of Feed-in tariffs (FITs), meaning that the Government will offer financial support for low-carbon electricity generation in projects up to 5 MW. The aim is for generators to receive a guaranteed payment for generating low carbon electricity.

Name of law	Climate Change and Sustainable Energy Act
Date	2006
Summary	The Act contains several measures to monitor and promote energy efficiency and establishes a scheme to promote national targets for micro-generation. It provides for a green certificate scheme for electricity from renewable sources and for reporting on the energy efficiency of residential accommodation. The Act placed an obligation on Defra to report to parliament on GHG emissions and on action taken by the government to reduce these emissions. The first report was put to the UK parliament in 2007.

Name of law	Energy Act 2004
Date	2004
Summary	This Act sets up the energy framework for the UK. It provides the framework for the development of offshore wind and other marine renewable energy sources outside territorial waters. Such measures were expected to contribute to meeting the country's 10% renewable energy target by 2010. The Act establishes a Renewable Energy Zone (REZ), adjacent to UK territorial waters, within which renewable energy installations can be established. The Act enables the Crown

Estate to award licences for wind farm sites in the REZ on much the same basis as it currently leases sites within territorial waters.

The Act implemented a range of commitments made in the 2003 Energy White Paper, including those relating to energy efficiency, such as raising building and product standards, and creating an Energy Efficiency Action Plan for the UK.

Name of law	Renewables Obligation
Date	2002
Summary	<p>The Renewables Obligation (RO) is the current main mechanism for supporting large-scale generation of renewable electricity. It has been subject to various reforms and improvements. It is a market-based mechanism, designed to provide a substantial incentive for all eligible forms of renewable electricity.</p> <p>The RO places an obligation on licensed electricity suppliers to source a specified and annually increasing proportion of their electricity sales from renewable sources, or pay a penalty. The obligation for 2009/10 was 9.7%, rising to 15.4% by 2015/6.</p> <p>Previously, one Renewable Obligation Certificate (ROC) was issued for each MWh of eligible generation, regardless of technology. In 2009, reforms gave new generators joining the RO different numbers of ROCs, depending on the costs and potential for large-scale deployment. New projects in more expensive technologies like offshore wind now receive more support and those that are more economic, like landfill gas, receive less.</p> <p>Generators can sell their ROCs to electricity supply companies, which use them to demonstrate compliance with the Obligation. This enables generators to receive a premium on top of the sale of the electricity. In 2010, further changes included the RO being extended from its current end date of 2027 to 2037 for new projects, in order to provide greater long-term certainty for investors, and an increase in support for offshore wind projects meeting certain criteria.</p> <p>The Office of Gas and Electricity Markets (Ofgem) is responsible for monitoring and enforcing compliance with the RO. Their functions include accrediting renewable generators and the issuing of ROCs.</p>

Name of law	Preferential Tax Regimes for Biofuels
Date	2002
Summary	<p>A reduced excise duty rate was introduced for biodiesel in July 2002 and bio-ethanol in 2005, set at GBP0.20 (USD0.31) lower than the rate applicable to diesel and unleaded petrol. Producers of bio-blend and bio-ethanol blend also benefit from the reduced rate of excise duty, as the proportion of biodiesel or bio-ethanol in the blend bears the lower rate of excise duty.</p>

Name of law	Company Car Tax Reform
Date	2002
Summary	<p>In 2002, the UK Company Car Tax system was revised to be carbon-based. All company cars first registered after January 1998 are taxed on a percentage of their list price according to CO₂ emission bands, measured in grams per kilometre (g/km).</p> <p>The reform was intended to remove the perverse incentive in the existing system to reduce the tax due by driving unnecessary extra business miles and to provide a significant</p>

incentive to company cars drivers to choose more fuel-efficient vehicles.

To further promote environmentally friendly vehicles, the government introduced a progressive percentage charge rate system. This system has evolved over time – as of 2011, the charge is 0% for cars with zero emissions, rising stepwise to a maximum of 35% for emissions of 225g/km and higher.

Name of law	Climate Change Agreements
Date	1 April 2001 (amended multiple times, most recently 2014)
Summary	<p>Climate Change Agreements (CCAs) are voluntary agreements allow energy intensive business users to receive a discount from the Climate Change Levy of up to 90% of the Levy, in return for meeting energy efficiency or carbon saving targets. (There is also a 100% exemption from the Levy for certain energy-intensive metallurgical and mineralogical industries.)</p> <p>The first agreements ran from 2001 to 31 March 2013, and the second CCA scheme runs from 1 April 2013 to 21 December 2023. In 2004, the eligibility criteria for the UK’s Climate Change Agreements (CCAs) were extended to cover other energy intensive sectors of industry not originally included within the arrangements for CCAs. Those sectors already eligible for CCAs were unaffected by the changes. CCA targets have been agreed with 53 industrial sectors across more than 9000 sites.</p> <p>It was announced in 2007 that the CCA scheme would be extended by 4 years to 2017, subject to state aid approval. This is to provide industry with greater certainty for the medium term, and enable CCAs to continue to contribute significantly to the UK’s Climate Change Programme.</p>

Name of law	Climate Change Levy
Date	2001 (amended multiple times, most recently 2014)
Summary	<p>The Levy applies to electricity, gas, solid fuel and liquefied gases used for lighting, heating and power in the business and public sectors.</p> <p>The Levy was designed to be broadly revenue neutral in concept: at the time of introduction it formed part of a “Levy Package” where the revenue collected is recycled back to business through a 0.3% reduction in National Insurance Contributions and also a system of enhanced capital allowances for investments in energy saving technologies.</p> <p>Electricity produced from qualifying renewable sources and energy used and generated in approved combined heat and power schemes are exempt from the levy.</p> <p>There is also a reduced (20%) rate for energy-intensive businesses that enter into voluntary agreements to reduce their energy use and/or emissions.</p>

United Kingdom: Executive Portfolio

Name of policy	National Adaptation Programme
Date	July 2013
Summary	<p>The National Adaptation Programme (NAP) document – covering England only – sets out a register of actions agreed under the programme, aligns actions being taken with the risks identified in the 2012 Climate Change Risk Assessment (CCRA), and establishes timeframes for actions according to different themes.</p> <p>The NAP sets out actions according to six themes:</p> <ul style="list-style-type: none">• Built environment• Infrastructure• Healthy and resilient communities• Agriculture and forestry• Natural environment• Business and local government. <p>The NAP identifies actions to be taken by the government, as well as by local governments, the private sector and civil society. The NAP focuses on particular areas of particular importance, guided by the CCRA’s assessment of the magnitude, confidence and urgency scores assigned to particular risks.</p> <p>The NAP also sets out four overarching objectives to address the greatest risks and opportunities arising due to climate change:</p> <ul style="list-style-type: none">• Increasing awareness• Increasing resilience to current extremes• Taking timely action for long-lead time measures• Addressing major evidence gaps.

Name of policy	UK Climate Change Risk Assessment (CCRA)
Date	January 2012
Summary	<p>The CCRA is composed of both a government report presented to Parliament and a detailed underlying evidence base, including a highly detailed Evidence Report, reports for 11 sectors, and reports for Scotland, Wales and Northern Ireland.</p> <p>The CCRA brings together a broad evidence base – including the UK Climate Projections 2009, government reports, peer-reviewed literature and new analysis – to produce a long-list of 700 climate risks. 100 risks from the long-list across a range of sectors are compared based on the magnitude of risks, how the magnitude of risk varies over time, and the confidence in the evidence base.</p> <p>The CCRA identifies the key risks and opportunities in the UK for the following themes:</p> <ul style="list-style-type: none">• Agriculture and forestry• Business• Health & wellbeing• Buildings and infrastructure• Natural environment.

Name of policy	Carbon Plan
Date	2011
Summary	<p>The Carbon Plan replaced the 2009 Low Carbon Transition Plan.</p> <p>The Plan sets out how the UK will achieve decarbonisation within the framework of energy policy – making a transition to a low carbon economy while maintaining energy security and minimising costs to consumers (particularly those in poorer households).</p> <p>The Plan sets out proposals and policies to meet the UK’s first four carbon budgets, each lasting five years with increasing emissions reductions targets. The fourth budget, for the period 2023-2027, requires emissions to be reduced by 50% compared to 1990 levels.</p> <p>The plan includes 5 sectoral plans, covering measures to be taken during this decade and in the 2020s:</p> <ul style="list-style-type: none"> • Low carbon buildings, including energy efficiency and low carbon heating • Low carbon transport • Low carbon industry • Low carbon electricity • Agriculture, land use, forestry and waste <p>The government will support up to 1.5 million solid wall insulations and other energy efficiency measures, introduce zero-carbon home standards to support energy efficiency improvements. It will also support over 130,000 low carbon heat installations by 2020 and work with local authorities to support district heating networks. The Plan sets out that emissions from buildings should be 24%-39% lower than 2009 levels by 2027.</p> <p>The government will support the market roll-out of ultra-low emission vehicles and the take-up of other lower carbon travel methods (walking, cycling, public transport), with the aim that transport emissions should be 17%-28% lower than 2009 levels by 2027. Emissions from industry will be reduced by 20%-24% compared to 2009 levels by 2027, through a mix of energy efficiency measures, low carbon fuel use, EU ETS membership, and CCS development.</p> <p>By 2027, emissions from electricity should be 75%-84% lower than 2009 levels. These reductions will come from increasing use of gas and renewables instead of coal, the introduction of Contracts for Difference in feed-in tariffs, and support for renewables development, CCS development, and reductions in the cost of offshore wind. The Plan does not set any specific technology or decarbonisation targets, and supports the lowest cost mix of nuclear, renewables and CCS use by 2027.</p> <p>The Plan envisages significant reductions in methane emissions from landfill by 2050, as part of the move towards a zero waste economy.</p>

Name of policy	UK Renewable Energy Roadmap
Date	2011 (updated 2012, 2013)
Summary	<p>The UK Renewable Energy Roadmap replaced the 2009 Renewable Energy Strategy. The Roadmap outlines how the UK will meet its legally binding target to ensure 15% of energy comes from renewable energy sources by 2020.</p> <p>The government estimates that eight renewables technologies can deliver more than 90% of renewable energy needs in 2020, setting out key actions for each technology.</p> <ul style="list-style-type: none"> • Onshore wind: The government will enable investment through reform of the electricity market and planning system and upgrade onshore transmission capacity • Offshore wind: the government will work to reduce the costs of offshore wind,

to manage conflicts with oil and gas exploration, and to provide greater certainty over financial incentives

- Marine energy: the government will provide £20m to support wave and tidal energy innovation and work to introduce a knowledge-sharing network
- Biomass electricity: the government will establish measures to support long-term waste fuel supplies, including possible landfill restrictions on waste food, and will work to introduce cost-effective fuel monitoring and sampling systems
- Biomass heat: The government will increase the attractiveness of biomass heat and biomethane through the Renewable Heat Incentive and Renewable Heat Premium Payment, and will work to enable anaerobic digestion plants through reduced regulatory burdens and faster permitting
- Ground source and air source heat pumps: the government will introduce the Renewable Heat Incentive for non-domestic installations and the Renewable Heat Premium Payment for certain domestic heat pumps, will streamline planning and consenting processes, and will tighten Microgeneration Certification Scheme training to improve technical abilities of installers
- Renewable transport: The government will establish a plan to meet the 2020 transport sub-target and will support the market for plug-in electrical vehicles

The annual updates to the Roadmap allow the government to monitor renewables deployment and the development of the market, in order to ensure the UK can meet the renewables target efficiently and at the lowest cost mix of renewable technologies.

Name of policy	Low Carbon Transport Innovation Strategy
Date	2007
Summary	<p>The Strategy sets out a wide range of actions that the UK is taking to encourage innovation and technology development in lower carbon transportation technologies, including stimulating investment in a broad range of R&D activities. Essential to this will be the use of regulatory frameworks such as carbon pricing and energy efficiency, but also government funding aimed at accelerating the development and market penetration of new lower carbon technologies.</p> <p>One major initiative is the Low Carbon Vehicles Innovation Platform, a GBP100m (USD156.6m) programme over five years supported by the Technology Strategy Board, the Engineering and Physical Sciences Research Council and Department for Transport, and funded through the Technology Strategy Board.</p>

Name of policy	Climate Change Programme 2006
Date	2006
Summary	<p>First published in 2000, the Climate Change Programme outlined all the policies and programmes in place to tackle climate change, including several measures on energy efficiency. A review resulted in the Climate Change Programme 2006.</p> <p>The 2006 Programme includes measures that are projected to reduce CO₂ emissions to 15–18% below 1990 levels by 2010 and work towards the longer-term goal to reduce carbon emissions by 60% by 2050, as set out in 2003’s Energy White Paper.</p> <p>Energy Efficiency Measures include:</p> <ul style="list-style-type: none"> • maintain a strong package of support, advice and information measures to help businesses improve their energy efficiency • continue to use the climate change levy and associated climate change agreements to encourage businesses to improve the efficiency with which they use energy • continue the significant improvements made and update the Building Regulations in April 2006 to raise energy standards of new build and refurbished

- buildings
- introduce the Code for Sustainable Homes.

On transportation, the Programme will work strongly to achieve further commitments from vehicle manufacturers to improve fuel efficiency.

Name of policy	Code for Sustainable Homes
Date	2006
Summary	<p>Building on the recommendations of the Sustainable Buildings Task Group, the Code was developed to support a step change in the building of sustainable new homes. The Code provides a single national standard to guide industry in the design and construction of sustainable homes, considering energy among other aspects.</p> <p>Since 2007 the developer of any new home in England can choose to be assessed against the Code. From 2008 it was mandatory for all new homes to be rated against the Code and to include a Code or nil-rated certificate within the Home Information Pack. Even though the requirement for the Home Information Pack for property sales was suspended in 2010, an Energy Performance Certificate is still required.</p> <p>There are six levels of the Code, with mandatory minimum standards for energy efficiency at each level. Level 1 represents a 10% improvement in energy efficiency over the 2006 Building Regulations. Level 6 would be a completely zero-carbon home (heating, lighting, hot water and all appliances).</p> <p>Improvements in the energy efficiency of new homes of more than 25% compared to 2006 regulations (Level 3 of the code) would probably require some form of low- or zero-carbon energy generation, either by individual buildings (e.g. dedicated solar water heating) or by whole developments sharing a source of low carbon generation (e.g. wind turbines).</p>

Name of policy	Bio-energy Capital Grants Scheme
Date	2002
Summary	<p>Supports biomass-fuelled heat, and CHP projects in the industrial, commercial and community sectors in England. Six rounds of funding have been provided since the Scheme was launched in 2002. Earlier rounds focused support on large-scale biomass power stations. The emphasis in later rounds has been to support small- and medium-sized projects.</p> <p>The Bio-energy Capital Grants Scheme promotes the efficient use of biomass for energy, and in particular the use of energy crops by stimulating the early deployment of biomass-fuelled heat and electricity generation projects. It awards capital grants towards the cost of installing equipment in complete biomass-fuelled projects in the industrial, commercial and community sectors.</p> <p>The main policy aims of the Scheme are to:</p> <ul style="list-style-type: none">Deliver capacity to create an initial market for biomass fuel, installation equipment and servicesTo stimulate the UK renewables industryProvide learning benefits that will accelerate the industry and achieve more efficient and cost effective use of biomass for heat and electricity.

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