



United Kingdom

In the UK, the regulatory bodies responsible for protection of the environment are principally the Environment Agency (which covers England and Wales, *see* <https://www.gov.uk/government/organisations/environment-agency>), the Scottish Environmental Protection Agency (*see* <http://www.sepa.org.uk/>), the Department of the Environment in Northern Ireland (*see* <http://www.doeni.gov.uk/>), and local authorities. Installations within the UK are subject to the Environmental Permitting (England and Wales) (Amendment) Regulations 2013 (No. 390 of 2013, available at <http://www.legislation.gov.uk/ukxi/2013/390/regulation/1/made>). It is the duty of the permit issuing regulator to ensure that the installation meets the obligations and outcomes of the permit, laid out within the relevant directives or national policies which apply. In the UK the Environment Agency is responsible for the regulation of large combustion plants (that is, Part A(1) installations, *see* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211852/pb13897-ep-core-guidance-130220.pdf). DEFRA (Department for Environment, Food and Rural Affairs, *see* <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs>) and the Welsh Government jointly provide guidance on the environmental permitting system. The local authority of a site may be responsible for the permitting and regulation of part of a site that includes an installation that is permitted and regulated by the Environment Agency. In this case, the two regulators will work together and consult each with all parties involved.

There are three Acts of Parliament that affect coal combustion plants within the UK, namely:

- Environmental Act 1995 (Part IV, Chapter 25, 1995, available at <http://www.legislation.gov.uk/ukpga/1995/25/part/IV>) via the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 (*see* https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf)
- Climate Change Act 2008 (Chapter 27, 2008, available at <http://www.legislation.gov.uk/ukpga/2008/27/contents>)
- Energy Act 2013 (Chapter 32, 2013, available at <http://www.legislation.gov.uk/ukpga/2013/32/contents/enacted/data.htm>).

The Climate Change Act 2008

The Climate Change Act 2008 specifies national targets, such as the 80% reduction in greenhouse gas emissions by 2050, relative to 1990 levels. It also sets carbon budgets which provide a capping level for the amount of greenhouse gas emitted over a five-year period. The Committee on Climate Change has also been set up in response to the Act to provide advice on climate change. Additionally, a National Adaption Plan requires the government to assess the UK's risks from climate change and prepare a strategy to manage these risks. The two key departments involved with setting policy and collaborating with the Committee on Climate Change are the Department of Energy and Climate Change (DECC, *see* <https://www.gov.uk/government/organisations/department-of-energy-climate-change>) and Department for Environment and Rural Affairs (DEFRA). Following collaborations with the Committee, the Climate Change (Scotland) Act 2009 (*see* <http://www.gov.scot/Topics/Environment/climatechange/scotlands-action/climatechangeact>) and the Northern Ireland Climate Change Act (*see*

http://www.doeni.gov.uk/index/protect_the_environment/climate_change/ni_climate_change_bill.htm) were both passed into law. The Welsh Government does not currently have its own climate change legislation.

All of the Acts, bar the Energy Act 2013, do not specify individual limits of emissions for operating facilities; rather they specify national ambitions and targets, which collectively, industry and the general public must abide by. This is because European Directives set individual emissions limit values for pollutants from large combustion facilities. The Energy Act is also responsible for the introduction of, among other things, the Electricity Market Reform (EMR) and national decarbonisation targets, which are aimed at attracting the new infrastructure investment that is required.

The Energy Act 2013

The Energy Act 2013 specifies a limit on carbon dioxide (CO₂) emissions in any year from all fossil fuel plants. The formula utilised for calculating the emission limit of CO₂ is:

$$EL = R \times C \times 7.446$$

where

EL is the Emission Limit, in tonnes of CO₂ per year,

R is the statutory rate of emissions, in g/kWh,

C is the installed generating capacity, in MW, of the electricity generating station comprised in the fossil fuel plant, and

7.446 is a numerical constant.

Until (and including) 2044, the statutory rate of emissions is 450 g/kWh.

The Carbon Price Floor

The Carbon Price Floor (CPF) is a tax on fossil fuels used to generate electricity. It is designed to provide an incentive to invest in low-carbon power generation. The CPF originates from the European Union Emissions Trading Scheme (EU ETS, see http://ec.europa.eu/clima/policies/ets/index_en.htm), Directive 2003/87/EC (see <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02003L0087-20090625>), since amended to Directive 2009/29/EC (see <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0029>). The CPF came into effect on 1 April 2013. It changes the existing Climate Change Levy (CCL) regime, by applying carbon price support (CPS) rates to combustion plants for electricity generation. During the 2014 budget announcements, these levels were reformed so that the CPS rate per tonne of carbon dioxide (tCO₂) – the UK only element of the CPF – will be capped at a maximum of £18 from 2016–17 until 2019–20. This cap has been put in place as the carbon price set by the EU ETS is currently inappropriately low. Thus, without the cap in place UK firms would face significantly higher energy prices than those of competitors abroad, and household energy bills would rise. Alternative rules apply to facilities with a combined capacity below 2 MW with regards to carbon rates.

Pollutant releases

The UK maintains a record of pollution releases by individual facilities and regions, and the data are available via the UK Pollutant Release and Transfer Register (see <https://www.gov.uk/guidance/uk-pollutant-release-and-transfer-register-prtr-data-sets>) and the National Atmospheric Emissions Inventory (see <http://naei.defra.gov.uk/>). Coal combustion facilities are required to record and present their emission data to their regulating authority. Local authorities are responsible for measuring and recording the ambient air quality and setting a local strategy for meeting the required targets.

European legislation

The UK is a member state of the European Union and is therefore bound by the legislation that is summarised in the emission standards for the European Union (see <http://www.iea-coal.org.uk/documents/83365/9012/European%20Union>). The current legislative directives that regulate and influence the Emission Limit Values (ELV) for coal power facilities are:

- Industrial Emission Directive (IED – 2010/75/EU, available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32010L0075>). It applies to all new facilities and existing installations that ‘opt in’.
- Large Combustion Plant Directive (LCPD – 2001/80/EC, available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1402653842533&uri=CELEX:32001L0080>). It no longer regulates new facilities.
- National Emission Ceiling for Certain Atmospheric Pollutants Directive (NECD – 2001/81/EC, available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1402657637882&uri=CELEX:32001L0081>). It sets national pollutant limits for individual member state countries that must not be exceeded.
- European Union Emissions Trading Scheme (EU ETS 2009/29/EC, see <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0029>), which amends 2003/87/EC (see <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02003L0087-20090625>).

Environmental legislation

Since the UK joined the EU (formerly European Economic Community) in 1973, environmental legislation has been strongly guided and derived from the directives and regulations stipulated by membership of the EU. To meet the requirements of European law the following legislation has been transposed and enacted into UK law:

- The National Emission Ceilings Regulations 2002 (No. 3118 of 2002, available at <http://www.legislation.gov.uk/ukxi/2002/3118/contents/made>), which is transposed from the National Emission Ceilings For Certain Atmospheric Pollutants (2001/81/EC, available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1402657637882&uri=CELEX:32001L0081>).
- Environmental Permitting (England and Wales) (Amendment) Regulations 2013 (No. 390 of 2013, available at <http://www.legislation.gov.uk/ukxi/2013/390/regulation/1/made>). It is commonly referred to as the Environmental Permitting System, and is transposed from the Industrial Emissions Directive (2010/75/EU) of the European Parliament and of the Council on industrial emissions (Integrated Pollution Prevention and Control) (Recast) (available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32010L0075>).

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