UK Legislation Timeline
Emissions | Energy | Efficiency

ARUP

Drivers | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 - 2049 | 2050

Targets

Global
Targets set under the Kyoto Agreement.

- 16 Feb 2005: Kyoto Protocol came into force
- CoP16 Cancun
- CoP17 Johannesburg
- 5.2% legally binding reduction in CO_2 equivalent Kyoto Protocol Annex I country GHG (Carbon Dioxide, Methane, Nitrous Oxide, Sulphur Hexafluoride) and Hydrofluorocarbons and Perfluorocarbons by 2012 (1990 baseline)

European Union
Targets imposed under various EU policies and directives.

- 8.0% reduction in CO_2 equivalent Kyoto Protocol European Union
- 20% EU Renewable Energy; 20% EU GHG Reduction (1990 baseline); 20% Less Energy Consumption — 20-20-20

United Kingdom
Targets set under the Climate Change Act 2008. Scotland and Wales targets set by devolved parliaments.

- 12.5% reduction in CO_2 equivalent Kyoto Protocol United Kingdom
- 15% UK Renewable Energy (~ 32% Renewable Electricity)

Carbon Budgets

- 01 Apr 2008 – 31 Mar 2013: 22% — 2008 - 2012 Carbon (equivalent) Reduction Budget (midpoint 2010) from 1990 baseline
- 01 Apr 2013 – 31 Mar 2018: 28% — 2013 - 2017 Carbon (equivalent) Reduction Budget (midpoint 2015) from 1990 baseline
- 01 Apr 2018 – 31 Mar 2022: 34% — 2018 - 2022 Carbon (equivalent) Reduction Budget (midpoint 2020) from 1990 baseline
- 2010: 4 TWh of electricity produced from renewable sources in Wales
- 2011: 31% of gross electricity consumed from renewable sources in Scotland
- 2020: 7 TWh of electricity produced from renewable sources in Wales; 80% of gross electricity consumed from renewable sources in Scotland
- Carbon (equivalent) Reduction Budget from 1990 baseline: 80%

Emissions

European Union Emissions Trading Scheme (EUETS)
Largest multi-country, multi-industry emissions trading scheme initially focussed on Greenhouse Gas reduction.

- Phase I (3 years), 01 Jan 2005 – 31 Dec 2007: Large Electricity Producers (>20 MW); Offshore facilities (including flaring); Refineries + Partial inclusion of Others
- Phase II (5 years), 01 Jan 2008 – 31 Dec 2012: Large Electricity Producers; Offshore facilities; Refineries; Iron & Steel; Cement; Lime; Ceramics; Glass; Pulp & Paper; Chemicals; Food & Drink; Aluminium; Services; Other Electric; Downstream Gas; Gypsum; Mineral Wool; Aerospace; Vehicle Manufacture; Textiles; Tyres; Munitions.
- Phase III (7 years), 01 Jan 2013 – 31 Dec 2020: Aviation
- 21% CO_2 reduction (2005 baseline)

UK National Allocation Plan (NAP)
Plan which defines the UK allocation of EK Allowances (EUA) across the spectrum of carbon emitting sectors.

- UK NAP 1, 01 Jan 2005 – 31 Dec 2007: 245.3 MMT CO_2 per year limit; EU approved 29 Nov 2006; Free allocation
- UK NAP 2, 01 Jan 2008 – 31 Dec 2012: 246.2 MMT CO_2 per year limit; ~7% Auctioned EUA; ~52% of UK CO_2 emissions covered
- EU Allocation Plan, 01 Jan 2013 – 31 Dec 2020: 1.74% CO_2 reduction per year; National Allocation Plans (NAPs) superceded by EU wide allocation plan; 100% auctioning or sale of EUAs in Large Electricity Producer (LEP) sector

Emissions Performance Standards (EPS)
Restrictive emission limits for power generation driving CCS operation. Not included in 2010 Energy Bill as originally suggested.

- Likely EPS Consultation
- Consultation
- Proposed introduction of Carbon Capture and Storage (CCS) Levy
- Restrictive CO_2 emissions for coal power plants driving CCC operation?
- Gas power plants built after 2020 to include CCS ?

Large Combustion Plant Directive (LCPD)
EU Directive imposing limits on Sulphur Dioxide, Nitrogen Oxides and Dust.

UK National Emissions Reduction Plan (NERP)
UK specific implementation of Large Combustion Plant Directive.

- SO_2 limits drove requirement for FGD
- Plants larger than 50 MWth
  - 'New New': Plants licensed after 27 Nov 2002
  - 'New': Plants licensed between 1 Jul 1987 and 27 Nov 2002
  - 'Existing': Plants licensed before 1 Jul 1987
- 01 Jan 2008: 'New New', 'New', 'Existing Opt-In' — Comply with LCPD Emission Limit values (ELV's) and/ or trade emission allowances in NERP; 1 Jan 2016 NO_x limit for >500 MW_{th} Solid Fuel (Coal) drops from 500 to 200 mg/Nm3 driving SCR retrofit. Plants Opting-Out close by 2023; Continues unless superceded by IED or other
- 'Existing Opt-Out' — Limit operation from 1 Jan 2008 to 20,000 hours or close by 31 December 2015; Plants close by 31 Dec 2015 at the latest

Industrial Emissions Directive (IED)
Recasting of seven existing emissions directives, including LCPD and IPPC into a single legislative item.

- IED combines directives: Integrated Pollution Prevention and Control (IPPC) Directive; Large Combustion Plant Directive (LCPD); Waste Incineration Directive (WID); Directive limiting Volatile Organic Compounds; and Various Titanium Dioxide directives
- 01 Jan 2014: Decision to opt out 'Older Plant'
- 01 Jan 2016: Transitional National Plans — Comply with tighter emission controls by 30 Jun 2020 (Jul 2020)
- 'Older Plant' — Limit operation from 1 Jan 2016 to 17,500 hours or close by 31 December 2023; Plants close by 31 Dec 2023 at the latest

Waste Incineration Directive (WID)
Limits emissions from incineration and co-incineration of waste with a focus on dioxins, mercury and particulate matter.

- From 04 Dec 2000: Imposes Emission Limit Values (ELV's) for incineration and co-incineration of waste, including limits on: Dust; Heavy Metals; Dioxins; Carbon Monoxide; Poly Aromatic Hydrocarbons; SO_2; NO_x. Continues unless superceded by IED or other

Energy

Renewables Obligation (RO)
Increasing requirement for suppliers to source electricity from renewable sources within the UK.

- From Apr 2002 - 3.0%: GB (England, Wales & Scotland)
- From Apr 2005 - 2.5%: NI (Northern Ireland)
- 9.7 ROCs/100MWh (Actual); 11.1 ROCs/100MWh (Actual); 11.4% Fixed 10% Headroom; 12.4% Fixed 10% Headroom; 13.4% Fixed 10% Headroom; 14.4% Fixed 10% Headroom; 15.4% Fixed 10% Headroom; 15.4% Fixed until 31 Mar 2027
- 3.5 ROCs/100MWh (Actual); 4.27 ROCs/100MWh (Actual); 5% Fixed 10% Headroom; 01 Apr 2012; 6.3% Fixed 10% Headroom; 6.3% Fixed until 31 Mar 2027
- Less than 20 years ROC provision for any new facility before 2037
- Less than 20 years ROC provision for any new facility before 2033
- ROCs end for existing (accredited before 25 Jun 2008) facilities on 31 Mar 2027
- GB RO Ends 31 Mar 2037
- NI RO Ends 31 Mar 2033

Renewables Obligation Banding
Differentiated banding of various forms of renewable generation under the Renewables Obligation. Four yearly cycle of renewable banding levels.

- 01 Apr 2009 – 31 Mar 2013: 2009 - 2013 Banding — Onshore Wind (1 ROC); Wave, Tidal, PV (2 ROC); Dedicated Biomass (2 ROC); Offshore Wind (1.75 ROC) except 2 ROC if accredited (operational) between 01 Apr 2010 and 31 Mar 2014
- 01 Apr 2013 – 31 Mar 2017: 2013 - 2017 Banding — Banding to be determined by First Banding Review
- 01 Apr 2017 – 31 Mar 2021: 2017 - 2021 Banding — Banding to be determined by Second Banding Review
- Apr 2007: Marine Supply Obligation Introduced in Scotland
- Apr 2009: ROC uplift in Scotland to 3 for tidal and 5 for wave, to replace the Marine Supply Obligation
- First Banding Review: Oct 2010 Consultation; Summer 2011; Autumn 2011; Feb 2011 Accelerated Review (fast track for large scale PV); Dec 2011; Apr 2012
- Second Banding Review: Oct 2014; Spring 2016 Consultation; Final decision
- Third Banding Review: Oct 2018; Spring 2020 Consultation; Final decision; Autumn 2020

Feed in Tariff (FIT)
Incentive to support small-scale renewable electricity generation up to a capacity of 5MW.

- 01 Apr 2010 – 01 Apr 2012: Years 1&2 — 5% - 8% return on investment; PV (29.3 - 41.3 p/kWh); Wind (4.5 - 34.5 p/kWh); Hydro (4.5 - 19.9 p/kWh); AD (9.0 - 11.5 p/kWh)
- 01 Apr 2012 – 01 Apr 2013: Year 3 — PV (26.8 - 37.8 p/kWh); Wind (4.5 - 32.6 p/kWh)
- First Scheme Review 2013
- 01 Apr 2013: Continuation for new entrants after Year 3 to be determined
- FIT Tariff lifetime: AD, Wind, Hydro - 20 years; PV - 25 years

Renewable Heat Incentive (RHI)
Proposed incentivisation for the generation of heat from renewable and low carbon sources.

- 12% return on investment (6% for solar thermal)
- Under discussion: Air source heatpumps; Ground source heatpumps; Solar thermal; Renewable CHP; Biomass, Bioliquids; Biomethane

Efficiency

Climate Change Levy (CCL)
A charge on non-domestic consumers' energy use. Discounts to energy intensive sectors available under Climate Change Agreements (CCA).

- 01 Apr 2001: 80% discount on climate change levy available to energy intensive industry through Climate Change Agreements (CCA)
- 01 Apr 2011: 65% discount on climate change levy through Climate Change Agreements (CCA)
- 01 Apr 2013: Climate Change Agreements extension to be determined

Carbon Emissions Reduction Target (CERT)
Obligation on large energy suppliers to make efficiency savings through support to residential customer base.

- 01 Apr 2005: Energy Efficiency Commitment (Phase II) — 139 TWh energy consumption reduction
- 01 Apr 2008 – 31 Dec 2012: CERT — 293 $MtCO_2$ expected overall installation lifetime reduction through domestic energy saving interventions. 68% achieved through insulation measures; 40% targetted at low income and over 70 years of age; 15% targetted at high Fuel Povery risk group

Community Energy Savings Programme (CESP)
Obligation on energy suppliers to provide 'whole house' energy saving solutions to domestic consumers in low income areas.

- 01 Oct 2009 – 31 Dec 2012: 19.25 $MtCO_2$ reduction in carbon emissions through 'whole house' or 'whole street' approach
- Energy Company Obligation? Details to be determined
- 'Green Deal' expected to come into effect

Carbon Reduction Commitment (CRC) Energy Efficiency Scheme
Mandatory energy efficiency and emission reductions scheme for large public and private sector organisations.

- Applicable if > 6,000MWh per year or on 1/2 hourly metered electricity in 2008
- Introductory Phase: 01 Jan 2005 – 31 Dec 2008 Qualification Period; Footprint year; 3 Year Introductory Phase (including footprint year)
- 30 Sep 2010 End registration
- Second Phase: 01 Apr 2010 – 31 Mar 2013 Qualification Period; Footprint year; 7 Year Second Phase (including footprint year)
- Nov 2010 Consultation on scheme simplification; 30 Sep 2011 End registration
- Third Phase: 01 Apr 2016 Qualification Period; Footprint Year; 7 Year Third Phase (including footprint year)
- 30 Sep 2016 End registration (Third Phase)

Building Regulations
Statutors instrument defining the standards for new and replacement building developments in the UK.

- 01 Oct 2006: Part L (Conservation of fuel and power) updated
- 30% improvement in CO_2 emissions in Scotland
- 01 Oct 2010 – 2013: 25% energy efficiency improvement (baseline 2006 Part L)
- 44% energy efficiency improvement (baseline 2006 Part L)
- 2016: Pathway to Zero Carbon
- 2019: All new buildings to be 'zero carbon'

Code for Sustainable Homes (CSH)
Sustainability assessment process for new homes incorporating performance standards in England and Wales.

- 01 Apr 2007: Code for Sustainable Homes introduced
- 2008: Publicly funded housing to be CSH 3
- 01 May 2008: All new homes to be given a CSH rating
- 2010: CfSH energy requirements aligned with Part L 2010
- 31 Dec 2011: Building Regulation powers devolved to Welsh Assembly
- 50% improvement in CO_2 emissions in Scotland
- Expected 55% improvement in CO_2 emissions on 2006 levels in Wales
- 2015: Allowable solutions for zero carbon introduced
- 2016: All new schools to be 'zero carbon'
- 2016/2017: All new buildings to be 'zero carbon' in Scotland
- 2018: All new public sector buildings to be 'zero carbon'
- 2030: All new buildings to be total life 'zero carbon'

Key

THESE SYMBOLS IN **ALL COLOURS** DENOTE **EXISTING LEGISLATION**

THESE SYMBOLS IN **ALL COLOURS** DENOTE **LIKELY OR PLANNED FUTURE LEGISLATION**

Drivers | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 - 2049 | 2050

Edition No.3 February 2011
We would be pleased to receive your views and comments or for further information, please contact: energy@arup.com

Disclaimer: This publication is intended to provide a high level selective overview of emissions, energy and energy efficiency legislation and should not be relied upon by any third party and no responsibility is undertaken to any third party in relation to it.

www.arup.com/ukenergyposter