

Appendix H1

Climate Legislation, Policy and Guidance

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Legislation

Climate Change Act (2008)

The overarching Act in relation to climate is the Climate Change Act 2008. The Act introduces a legally binding target to reduce the UK's GHG emissions to at least 80% below 1990 levels by 2050. It also provides for a Committee on Climate Change (CCC) with power to set out carbon budgets binding on the Government for 5-year periods.

In the 2009 budget, the first three carbon budgets were announced which set out a binding 34% CO₂e reduction by 2020; and the Government has since adopted the fourth and fifth carbon budgets to reduce CO₂e by 50% by 2025 and 57% by 2030.

The CCC also produces annual reports to monitor the progress in meeting these carbon budgets. Consequent upon the enactment of the Climate Change Act, a raft of policy at national and local level has been developed aimed at reducing carbon emissions.

Climate Change Act: 2050 Target Amendment (2019)

In June 2019, the Government passed the Climate Change Act 2008 (2050 Target Amendment) Order 2019 to amend the 2050 carbon emissions target in the Climate Change Act 2008 from 80 % below 1990 levels to zero net carbon (i.e., 100 % below 1990 levels). This new target will essentially end the UK's contribution to climate change by 2050. The amendment to the 2008 Climate Change Act was in part to meet the UK's commitments as a signatory of the 2015 Paris Agreement, as well as the conclusion that net-zero is necessary, feasible, and cost-effective.

The Act clarifies that GHGs include:

- Carbon dioxide
- Methane
- Nitrous oxide
- Hydrofluorocarbons
- Perfluorocarbons
- Sulphur hexafluoride

Energy Act (2023)

The Energy Act makes a provision for the setting of a decarbonisation target range, duties in relation to it and for the reforming of the electricity market for the purposes of encouraging low carbon electricity generation.

EIA Directive (2014/52/EU) and Town and Country Planning (Environmental Impact Assessment) Regulations (2017)

The EIA Directive 2014 sets out the rationale for incorporating climate change into the EIA process. It states:

"Climate change will continue to cause damage to the environment and compromise economic development. In this regard, it is appropriate to assess the impact of projects on climate (for example greenhouse gas emissions) and their vulnerability to climate change."

The requirements of the EIA Directive (2014) have been adopted within Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) and require that the assessment provides:

“A description of the likely significant effects of the development on the environment resulting from, inter alia: (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change”.

Building Regulations Part L: Conservation of fuel and power (2021)

Part L (2021), under the Building Act 1984, sets energy efficiency requirements for dwellings and non-domestic buildings in England. It is one of 15 technical requirements outlined in Schedule 1 of the Building Regulations, focusing on conservation of fuel and power.

The 2021 revision introduces stricter carbon emission reduction targets, improved insulation standards, and updated methodologies like SAP10. Builders must ensure compliance through measures such as energy performance certificates and adherence to thermal efficiency benchmarks, working alongside related parts such as Part F (ventilation) and Part O (overheating). These updates aim to support the UK's broader net-zero carbon goals.

Planning Policy

National Planning Policy Framework (2024)

The National Planning Policy Framework (NPPF) sets out planning policy for England. It states that the purpose of the planning system is to contribute to the achievement of sustainable development, and that the planning system has three overarching objectives, one of which is an environmental objective:

- *“To protect and enhance our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy”.*
- Chapter 14 of the framework is entitled *“Meeting the challenge of climate change, flooding and coastal change”* and sets out the strategy for minimising the climate change effects of new development.
- Paragraph 164 states that *“new development should be planned for in ways that [...] can help reduce greenhouse gas emissions, such as through its location, orientation, and design. Any local requirements for the sustainability of buildings should reflect the Government’s policy for national technical standards”.*
- Paragraph 165 describes further that *“to help increase the use and supply of renewable and low carbon energy and heat, plans should: a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts); b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers”.*
- Paragraph 166 states that *“in determining planning applications, the NPPF requests that planning authorities should expect new development to: a) comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having*

regard to the type of development involved and its design, that this is not feasible or viable; and b) take account of landform, layout, building orientation, massing, and landscaping to minimise energy consumption.”

The National Adaptation Programme and Third Strategy for Climate Adaptation

The National Adaptation Programme sets out government’s response to the second Climate Change Risk Assessment, showing the actions government is, and will be, taking to address the risks and opportunities posed by a changing climate. It forms part of the five-yearly cycle of requirements laid down in the Climate Change Act 2008 to drive a dynamic and adaptive approach to building our resilience to climate change.

The Clean Growth Strategy

The Clean Growth Strategy sets out a comprehensive set of policies and proposals that aim to accelerate the pace of “clean growth”, *i.e.* deliver increased economic growth and decreased emissions. In the context of the UK’s legal requirements under the Climate Change Act, the UK’s approach to reducing emissions has two guiding objectives:

- To meet our domestic commitments at the lowest possible net cost to UK taxpayers, consumers, and businesses; and,
- To maximise the social and economic benefits for the UK from this transition.

The Strategy contains policies relating to the delivery of clean, smart and flexible power, including reducing power costs for homes and businesses and more transparent carbon pricing. It effectively replaces the “The Carbon Plan: delivering our Low Carbon Future” published in 2011.

Emissions from buildings are included in the 2050 target established by the Clean Growth Strategy. Heating in buildings and industry accounted for around 32% of total UK emissions from 1990 to 2015.

The UK’s current emissions policies will also still continue rely on EU mechanisms to achieve its carbon budgets, such as EU products policy which sets minimum standards for a range of products to improve energy efficiency.

The Carbon Plan: Delivering Low Carbon Future

The Carbon Plan sets out the government’s plans for achieving the emissions reductions commitment made in the Climate Change Act 2008 and outlines a strategy consistent with meeting the UK’s 2050 targets.

Vale of Aylesbury Local Plan

The Site is located within the Aylesbury Vale area of Buckinghamshire. Planning policy relevant to the Proposed Development is found in the Vale of Aylesbury Local Plan (VALP) (2013-2033), which was adopted by Buckinghamshire Council in September 2021. The main planning policy relevant to this assessment includes:

Policy S1 on Sustainable Development for Aylesbury

‘All development must comply with the principles of sustainable development set out in the NPPF. In the local context of Aylesbury Vale this means that development proposals and neighbourhood planning documents should:

Contribute positively to meeting the vision and strategic objectives for Aylesbury Vale set out above, and fit with the intentions and policies of the VALP (and policies within neighbourhood plans where relevant).

Proposals that are in accordance with the development plan will be approved without delay, unless material

considerations indicate otherwise. The council will work proactively with applicants to find solutions so that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

- a) Where there are no policies relevant to the application then the council will grant permission unless material considerations indicate otherwise – taking into account whether:*
- any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework (2012) taken as a whole, or*
 - specific policies in the NPPF (2012) indicate that development should be restricted.*

In assessing development proposals, consideration will be given to:

- b) providing a mix of uses, especially employment, to facilitate flexible working practices so minimising the need to travel;*
- c) delivering strategic infrastructure and other community needs to both new and existing communities;*
- d) giving priority to the reuse of vacant or underused brownfield land;*
- e) minimising impacts on local communities;*
- f) building integrated communities with existing populations;*
- g) minimising impacts on heritage assets, landscapes and biodiversity;*
- h) providing high-quality accessibility through the implementation of sustainable modes of travel including public transport, walking and cycling;*
- i) providing access to facilities including healthcare, education, employment, retail and community facilities; and,*
- j) meeting the effects of climate change and flooding.'*

Policy C3 on Renewable Energy

All development schemes should look to achieve greater efficiency in the use of natural resources.

Planning applications involving renewable energy development will be encouraged provided that there is no unacceptable adverse impact, including cumulative impact, on the following issues:

- a) landscape and biodiversity including designations, protected habitats and species;*
- b) visual impacts on local landscapes;*
- c) the historic environment including designated and non designated assets and their settings;*
- d) the Green Belt, particularly visual impacts on openness;*
- e) aviation activities;*
- f) highways and access issues; and,*
- g) residential amenity.*

The council will seek to ensure that all development schemes achieve greater efficiency in the use of natural resources, including measures minimise energy use, improve water efficiency and promote waste

minimisation and recycling. Developments should also minimise, reuse and recycle construction waste wherever possible.

In seeking to achieve carbon emissions reductions, the council will assess developments using an 'energy hierarchy'. An energy hierarchy identifies the order in which energy issues should be addressed and is illustrated as follows:

- h) reducing energy use, in particular by the use of sustainable design and construction measures;*
- i) supplying energy efficiently and giving priority to decentralised energy supply;*
- j) making use of renewable energy;*
- k) making use of allowable solutions; and,*
- l) an energy statement will be required for proposals for major residential developments (over 10 dwellings), and all non-residential development, to demonstrate how the energy hierarchy has been applied.*

With continually improving standards through building regulations, new buildings carry reduced need for heating and loads are based on winter heat and all year-round hot water demands. A feasibility assessment for district heating (DH) and cooling utilising technologies such as combined heat and power (CHP), including biomass CHP or other low carbon technology, will be required for:

- m) all residential developments of 100 dwellings or more;*
- n) all residential developments in off-gas areas for 50 dwellings or more; and,*
- o) all applications for non-domestic developments above 1000sqm floorspace.*

Where feasibility assessments demonstrate that decentralised energy systems are deliverable and viable and can secure at least 10% of their energy from decentralised and renewable or low carbon sources, such systems will be encouraged as part of the development.

Planning permission will normally be granted for off-site renewable energy (for example, but not confined, to wind, solar, biomass and energy crops, anaerobic digestion and landfill gas), where it has been demonstrated that all the following criteria have been met:

- p) There is no significant adverse effect on landscape or townscape character, ecology and wildlife, heritage assets whether designated or not, areas or features of historical significance or amenity value*
- q) there is no significant adverse impact on local amenity, health and quality of life as a result of noise, emissions to atmosphere, electronic interference or outlook through unacceptable visual intrusion; and,*
- r) there is no adverse impact on highway safety. Where development is granted, mitigation measures will be required as appropriate to minimise any environmental impacts. When considering the social and economic benefits, the council will encourage community participation/ownership of a renewable energy scheme.*

Aylesbury Vale is located within an area of water stress and as such the council will seek a higher level of water efficiency than required in the Building Regulations, with developments achieving a limit of 110 litres/person/day.

Applications for the adaption of older buildings should include improved energy and water efficiency and retrofitted renewable energy systems where possible.

Buckinghamshire Climate Change and Air Quality Strategy

The Buckinghamshire Climate Change and Air Quality Strategy for 2023 to 2024, outlines the council's commitment to achieving net zero carbon emissions by 2050 and improving air quality across the county. The strategy includes over 60 actions addressing climate change and poor air quality, focussing on council operations, partnerships with suppliers, and county-wide initiatives. Key actions include installing solar photovoltaic systems, energy-efficiency measures, electric vehicle charging points, flood risk management projects, and new walking and cycling routes. The strategy also emphasizes the importance of communication and behaviour change to ensure a sustainable future for Buckinghamshire.

Guidance

Assessing Greenhouse Gas Emissions and Evaluating their Significance (2022)

The IEMA Guidance on Assessing Greenhouse Gas Emissions and Evaluating their Significance (2022) provides a framework for practitioners involved in Environmental Impact Assessments (EIA). The document outlines the methodology for screening and scoping the boundaries of a GHG assessment, the methods for quantifying GHG emissions, and the criteria for evaluating the significance of emissions.

Climate Change Resilience and Adaptation (2020)

The IEMA Guidance on Climate Change Resilience and Adaptation (2020) provides a structured approach for integrating climate resilience and adaptation into the Environmental Impact Assessments EIA). The guidance sets out the steps that should be taken to integrate climate adaptation and resilience issues into the EIA process.

RICS: Whole life carbon assessment for the built environment (2017)

This professional statement, aligned with EN 15978, provides guidance for conducting Whole Life Carbon (WLC) assessments for buildings and infrastructure. It quantifies environmental impacts in terms of Global Warming Potential, reported in CO₂ equivalent (CO₂e), and offers practical advice on organizing assessment results.

RICS: Whole life carbon assessment for the built environment (2023)

The second version of the RICs Professional Standard for the Whole life carbon assessment for the built environment launched in 2023 and effective from the 1 of July 2024, introduces mandatory requirements to comply with the WLC RICS methodology. It also expand the scope of the standard to the following built assets:

- New construction/ new-build assets
- Demolition of existing assets,
- Retrofits, masterplans with multiple built assets,
- Fit-out assets

A main contribution from this standard is the clear guidance on how to address the uncertainty in WLCs.

IStructE: How to calculate embodied carbon (2022)

This guide offers practical steps and methodologies for calculating the embodied carbon of structural materials and systems. It aims to assist engineers and design professionals in quantifying and reducing the carbon impact of structures, promoting sustainable structural design practices.

It provides up-to-date carbon factors for widely used structural elements, including the embodied carbon content of typical concrete and steel components.

BSI: Sustainability of construction works – Assessment of environmental performance of buildings – Calculation method.

This standard provides a comprehensive framework for assessing the environmental performance of buildings through a life-cycle perspective. It details methods for calculating environmental impacts, including energy use, emissions, and material sustainability, to support the development of greener construction practice