

# UK and European Regulations – Non-domestic Buildings

## Background

Non-domestic buildings account for 11% of the total annual energy consumption and carbon emissions throughout the UK and Europe. Historically driven by the European Union and adopted into UK law, the Energy Performance of Buildings directive (EPBD) and the Energy Efficiency Directive (EED), have been the instruments to regulate energy consumption and set targets to reach net zero carbon emissions.

## Regulation in the United Kingdom

Since the United Kingdom left the European Union, the department for Business, Environment, and Industrial strategy (BEIS) has become responsible for setting the environmental, net zero and sustainable goals for the future.

The framework for delivering the objectives of a greener future are Regulations that are statutory instruments (legislation) that are scrutinised and voted on by the devolved national governments within the UK. For the construction of new buildings and refurbishment of existing buildings, the building regulations are a suite of approved documents that drive improvements in safety, functionality and energy efficiency. Of prime importance to the building controls industry is Approved Document L – Conservation of fuel & power which consists of two Documents:

- ADL1 – Conservation of Fuel & Power, Volume 1: Dwellings
- ADL2 – Conservation of Fuel & Power, Volume 2: Buildings other than dwellings

ADL1 provides some limited guidance on controls for dwellings however it states that, 'For large or complex buildings, the guidance in Approved Document L, Volume 2: Buildings other than dwellings should be followed.'

More specific requirements for non-residential buildings are laid out in paragraphs 6.66 to 6.73 of approved document L2 within which it cites the following standards

BS EN ISO 16484-2:2004 Building automation and control systems (BACS)

Hardware (British Standard) ISO 16484-2:2004 specifies the requirements for the hardware to perform the tasks within a building automation and control system (BACS).

BS EN 15232-1:2017 Energy Performance of Buildings. Impact of Building Automation, Controls and Building Management.

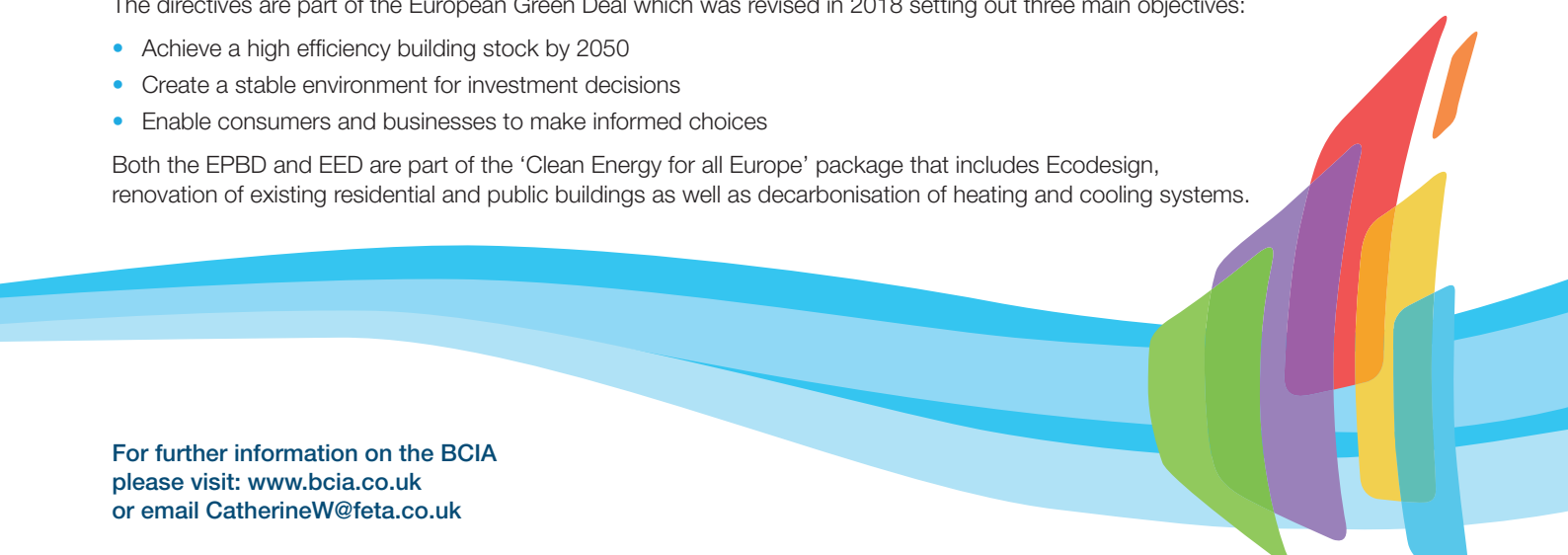
Note: BS15232 has since been superseded by BS EN ISO 52120-1:2022 Energy performance of buildings. Contribution of building automation, controls and building management. General framework and procedures

## European Directives

The directives are part of the European Green Deal which was revised in 2018 setting out three main objectives:

- Achieve a high efficiency building stock by 2050
- Create a stable environment for investment decisions
- Enable consumers and businesses to make informed choices

Both the EPBD and EED are part of the 'Clean Energy for all Europe' package that includes Ecodesign, renovation of existing residential and public buildings as well as decarbonisation of heating and cooling systems.



For further information on the BCIA  
please visit: [www.bcia.co.uk](http://www.bcia.co.uk)  
or email [CatherineW@feta.co.uk](mailto:CatherineW@feta.co.uk)

In charge of setting the agenda for Ecodesign, are three directorates:

Directorate Générale Energy (DG-Ener) - Aims to deliver secure, sustainable, and affordable energy for citizens and business.

Directorate Générale Growth (DG-Grow) – Supports an open, seamless, and resilient single market with open borders and free flow of goods and services. Mainly involved in the regulation of trading relationships and compliance enforcement their remit encompasses: citizen health, digital information and infrastructure, restriction of hazardous substances (REACH & ROHS), protection of intellectual property, Innovation, circular economy, sustainability, amongst other aspects of the sale of goods and services

Directorate Générale Environment (DG-Env) – Aims to deliver the goals of the Green Deal by regulating for a reduction in the storage and use of fossil fuels, deliver a Europe that is fit for the digital age with an economy that works for its citizens. Other goals include delivering a stronger Europe in the world, promoting the European way of life and its democratic beliefs. DE-Env also produces regulation that sets standards for a wide variety of factors including

Air Quality	Marine & Coastal Environment	Soil quality & Land Use
Chemicals	Nature & Biodiversity	Urban Environment
Circular Economy	Noise	Waste & Recycling
Industrial Emissions	Plastics	Water

It is the responsibility of the member states within Europe to legislate and deliver the requirements set out in the directives in their own country.

For more information on the EPBD see [https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive\\_en#directive-amendments](https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en#directive-amendments)

## Future regulations

As the future goal for buildings is to reach net zero carbon (NZC) emissions, the development of the international directives and regulations will include requirements for the monitoring and control of technical building systems. At the time of writing the European Union is consulting with industry associations on minimum standards for Building Automation and Control Systems (BACS) and a Smart Readiness Indicator (SRI). In addition to this, Indoor Environmental Quality (IEQ) and smart ventilation for Indoor Air Quality (IAQ) standards are a high priority.

Opportunities to influence the discussion and the direction of minimum standards are available via national and international trade associations such as the BCIA, FETA, EPEE, EVIA amongst others. Whilst the UK will not be bound to follow new EU directives, it is likely that the path for built environment regulation will follow similar goals and themes to deliver an NZC future.

BCIA – Building Control Industry Association – see [www.bcia.co.uk](http://www.bcia.co.uk)  
 FETA – Federation of Environmental Trade Associations – see [www.feta.co.uk](http://www.feta.co.uk)  
 EPEE – European Partnership for Energy and the Environment – [www.epeeglobal.org](http://www.epeeglobal.org)  
 EVIA – European Ventilation Industry Association - [www.evia.eu](http://www.evia.eu)

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