



Energy efficiency

and the Code for Sustainable Homes

Legislation

CFSH L007

The Code for Sustainable Homes expected compliance timeline

Dates (Compared with 2010 Part L Building Regulations)	2010	2013	2016
Code Level (social housing)*	4	6	
Code Level (private housing)	3	4	6
Points required	68	84	90

Reductions in CO₂ emissions required (compared with 2010 Part L Building Regulations)

Code Level 3:	Full compliance	Code Level 5:	100%
Code Level 4:	25%	Code Level 6:	NET zero carbon

* Homes built with public funds (not all social homes).

In 2006 the Government established the Code for Sustainable Homes, setting a 10-year timetable to achieve 'zero carbon standards' for building all new housing by 2016. This step-by-step tightening of the 2006 Part L Building Regulations required energy efficiency improvements in new homes of 25% by 2010 and 44% by 2013 compared with 2010 standards.

If building owners, developers and contractors are to achieve the current minimum Code levels – and meet the goal of zero carbon within the next 3-6 years – carbon emissions produced by space and water heating will be dramatically reduced.



What is the Code for Sustainable Homes?

The Code is now well established as the national standard in England and Wales for the sustainable design and construction of new housing.

Launched in 2006, the Code aims to reduce carbon emissions from the built environment and ultimately create more sustainable homes.

There are nine separate categories in the Code, which together provide a picture of the overall sustainability of a new home. The categories cover:

- Energy and CO₂ emissions
- Health and wellbeing
- Materials
- Surface water run-off
- Waste
- Pollution
- Water
- Management
- Ecology

A home can achieve a sustainability rating from one (*) to six (*****) stars. The Code Levels 1 to 6 are based on how a home measures up in these nine categories.

How is the Code managed?

- Implementation of the Code is managed by BRE Global under contract to Communities and Local Government
- Code for Sustainable Homes Assessors are trained and licensed by BRE and must undertake a three day Code assessor training course, followed by an examination
- Building assessments are carried out in two phases: an initial assessment and interim certification at the design stage; and the final assessment and certification carried out after construction

The Changing Code for Sustainable Homes...

Past

The Code for Sustainable Homes (CfSH) was implemented in April 2007 as a voluntary standard designed to encourage construction of new homes to higher environmental and sustainable standards. It replaced the previous EcoHomes voluntary standard.

From 1 April 2008, all new homes built with public finance (e.g. social housing) was required to meet CfSH Level 3. This represented a target of 25% energy reduction against the 2006 Building Regulations Part L.

In April 2010, builders of all privately funded new homes were required to provide a declaration against the CfSH and to demonstrate which Level is achieved.

Present (November 2010)

Building Regulations Part L were updated in October 2010 and the energy requirements were increased to reflect CfSH Level 3, i.e. 25% reduction against the previous Building Regulations 2006. Whilst there are currently no national requirements to meet the CfSH, there are many local requirements to encourage public new homes to meet CfSH Level 3 and even CfSH Level 4.

Future

The energy requirements of CfSH Level 4 represent a 25% improvement over Building Regulations 2010 and this higher requirement for energy is scheduled to be included into the next change in Building Regulations in 2013.

The current Government is looking at ways to closer align the Building Regulations and Code for Sustainable Homes in preparation to achieve 'zero carbon new homes' in Building Regulations from 2016.

Code Level 6 'zero net carbon' means that there are no net carbon emissions from all energy used in the home – including cooking, washing, lighting and hot water. The final definition is still under Government consultation.

What does the Code mean for me?

In the heating, ventilation and cooling sector, the most relevant of the nine categories is 'Energy and CO₂ emissions', which accounts for 36.4% of the overall Code rating.

The 'Energy and CO₂ emissions' category includes a range of environmental impacts and issues such as 'dwelling emission rates' and 'low or zero carbon technologies', which together are worth 17 out of 29 points available in this category – with a possible 104 points being available in the Code as a whole.

Minimum standards for Energy and CO₂ emissions are set as an entry requirement at each level of the Code, more specifically on the Dwelling Emission Rate (DER).

SAP rating

Since 1995, Building Regulations have also required a SAP rating for every new home. The calculation is based on a range of factors that contribute to energy efficiency.

SAP stands for Standard Assessment Procedure and is the Government's methodology for calculating the energy performance of domestic dwellings and demonstrating compliance with the Building Regulations. SAP calculations are done to establish the Dwelling Emissions Rate (DER) and percentage improvement over the Target Emission Rate (TER).

How can Daikin Altherma contribute towards Code compliance?

As part of a whole house building design including other energy saving measures, Daikin Altherma Air Source Heat Pumps can contribute towards reaching high levels of The Code for Sustainable Homes.

Daikin Altherma performance data is featured in SAP Appendix Q. SAP Appendix Q allows manufacturers' specific performance to be included for evaluation on SAP assessments. This means that Daikin Altherma performance can be entered into a SAP calculation instead of the default value for air source heat pumps.

For further info visit, www.sap-appendixq.org.uk