

briefing note 39

briefing note
contents

Code for Sustainable Homes

Version 2: September 2015

WILLMOTT DIXON

Overview

The Code for Sustainable Homes (CSH) is an environmental assessment method for rating and certifying the performance of new homes. It is a Government owned national standard intended to encourage continuous improvement in sustainable home building.

Launched in December 2006, the CSH called for a change in the way new homes were designed and constructed, and introduced a 1 to 6 star rating system to communicate their overall sustainability performance. In May 2008 it became mandatory for all new-build homes in England to be rated against the CSH, although this can be a nil rating requiring no assessment.

The CSH is the standard by which new homes in England, Wales and Northern Ireland are now being judged for their environmental credentials, covering a wide range of issues. Homes are assessed at the design stage and post construction. Each dwelling has its own assessment, and if it meets the required criteria, then it is awarded a certificate, ranging from Level 1 to Level 6, depending on performance.

What is the Code?

The CSH is a framework for many issues connected to sustainable development and provides a consistent benchmark against which dwellings can be judged.

It is also part of the UK's approach to protecting and enhancing the environment and tackling climate change. We know that buildings contribute almost half of the UK's carbon emissions and the long-term goal is to reduce carbon emissions by 80 per cent by 2050, and to achieve this we need to make sure new housing is much more sustainable.

Social and affordable housing, built with public funding, must currently meet the requirements of CSH Level 3 as a minimum, but with local planning requirements often requiring higher standards to be achieved. As these decisions will increasingly become the remit of Planning Authorities under the 'localism' agenda then you are advised to check what particular requirements may apply.

How does the Code work?

The Code assesses a new dwelling against nine categories (see table below); each of which is allocated a number of credits and a weighting factor.

	Code for Sustainable Homes		
Categories of Environmental Impact	**Total credits in each category**	**Weighting factor (% points contribution)**	**Approximate weighted value of each credit**
Energy and CO2 Emissions	29	36.40%	1.26
Water	6	9.00%	1.5
Materials	24	7.20%	0.3
Surface Water Run-off	4	2.20%	0.55
Waste	7	6.40%	0.91
Pollution	4	2.80%	0.7
Health and Wellbeing	12	14.00%	1.17
Management	9	10.00%	1.11
Ecology	9	12.00%	1.33
	104	**100.00%**	

Further explanation on the categories is given here:

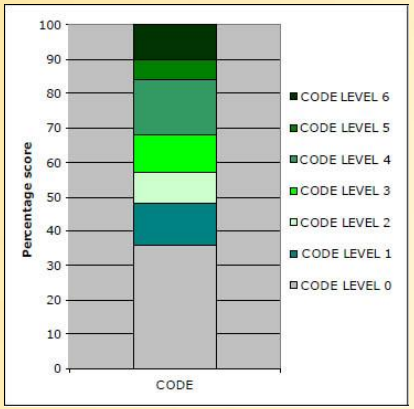
- Energy and CO_2 Emissions – Operational energy use (with a percentage improvement as measured through SAP over Building Regulation requirements) and resulting emissions of carbon dioxide to the atmosphere (both of which have minimum standards that must be met at each level of the code). Embodied carbon is not considered.
- Water - The consumption of potable water from the public supply systems or other ground water resources (has minimum standards to be met at various levels).
- Materials – The environmental impact of construction materials for key construction elements (no mandatory minimum standards).
- Surface Water Run-off – The change in surface water run-off patterns as a result of the development.
- Waste – Waste generated as a result of the construction process and facilities encouraging recycling of domestic waste in the home (no mandatory minimum standards).
- Pollution – Pollution resulting from the construction and operation of the dwelling (no mandatory minimum standards). For example the use of insulation with global warming potential ratings as a result of the

manufacturing process, or the release of oxides of nitrogen from boilers would be included in here.
- Health and Well-Being – The effects that the dwelling's design and indoor environment has on its occupants (no mandatory minimum standards).
- Management – Steps that have been taken to allow good management of the environmental impacts of the construction and operation of the home (no mandatory minimum standards).
- Ecology – The impact of the dwelling on the local ecosystem, bio-diversity and land use (no mandatory minimum standards).

(A table of the final page gives the subcategories for information).

Scores and Ratings

Code for Sustainable Homes	
Code Levels	**Total percentage points score (equal to or greater than)**
1	36 Points
2	48 Points
3	57 Points
4	68 Points
5	84 Points
6	90 Points



Compliance

Assessments are carried out in two phases:

- An initial assessment is carried out at the design stage. This is based on detailed documentary evidence and commitments which results in an interim certificate of compliance.
- Final assessment and certification is carried out at the post construction stage. Based on the design stage review, this includes a confirmation of compliance, including site records and visual inspection, and results in a final certificate of compliance.

Technical guidance is amended on a six-monthly basis, every April and October to reflect changes in materials and building techniques resulting from feedback from assessors and industry. There are also changes in the figures used relative to Approved Document Part L1A of the Building Regulations.

CSH levels relating to energy require assessment against standard rates for the emission of carbon dioxide as defined in Building Regulations (Part L1A).

Future of the Code

Following consultation in 2014 the Government has elected to remove the Code for Sustainable Homes and incorporate new additional optional Building Regulations on water and access, and a new national space standard. The aim is to boost industry activity through reduced regulatory and financial burdens. The new national technical standards are expected to come into force in October 2015.

From 26 March 2015 until 30 September 2015, the Government's policy is that where there is an existing plan policy which references the Code, authorities may continue to only apply:

- a requirement for a water efficiency standard equivalent to the new national technical standard (aligned to Code Level 3), and/or,
- in the case of energy performance, set a standard equivalent to the (outgoing) Code Level 4 requirements.

In respect of cases such as where developments are legally contracted to apply a Code policy or where a case has been granted permission subject to

condition stipulating discharge of a Code level, legacy arrangements will apply
It's a move to try and remove the sustainability "red tape" and aims to simplify the whole process. The new procedure still allows Local Authorities to demand contractors to take additional sustainability steps over and above those in the new building regulations but should allow for more clarity and definition as to what they want to achieve.

In the wake of this, BRE developed the Home Quality Mark.

In Wales, the Code continues to be a funding requirement for social housing.

Home Quality Mark

The Home Quality Mark (HQM) has been created to serve the UK's house builders and the householders who buy and rent new homes.

HQM is a voluntary standard and will help house builders to demonstrate the high quality of their homes and to differentiate them in the marketplace.
The HQM will do this by providing impartial information from independent experts on a new home's quality. It clearly indicates to householders the overall expected costs, health and wellbeing benefits, and environmental footprint associated with living in the home. In short, HQM helps everyone to fully understand the quality, performance and attributes of a new-build home.

Developed by BRE, the UK's leading building science centre, the Home Quality Mark is based on years of building standards experience, and is part of the successful BREEAM family of quality and sustainability standards.

For more information on BREEAM visit http://www.breeam.org/ or see Technical Briefing Note 16 – BREEAM.

How does Home Quality Mark work?

The System works by using two elements:

5 Star Rating:

- Independent, fully trained and licensed professionals assess and score wide ranging aspects of a new home to give an overall quality rating
- This 5-star rating makes it easy to quickly compare different homes in terms of their overall performance.
- The wide range of issues that are measured are divided into three sections:
    - Knowledge Sharing - the processes that enhance understanding and co-operation between the designer, constructor, client and householder.
    - Our Surroundings - the ability of homes to work with current and future surroundings.
    - My Home - the provision of living spaces that are comfortable, healthy, cost effective and have reduced environmental impacts.

Quality Indicators

- These provide greater clarity on how the home performs
- Indicators based on the key interests of the major participants - such as home occupants, developers and planners - are also rated.
- Indicators from a householder perspective, for example, are householder costs, positive impact on health and wellbeing, and environmental footprint.
- An example of the HQM 'scorecard' that a home will receive - showing the overall rating and the ratings for each of the three householder indicators - can be seen at http://www.homequalitymark.com/ratings-and-stars.
- Over time, further indicators will be developed from different perspectives, including those of developers, financial institutions, landlords and local authorities, and industry partners will be encouraged to become involved in their development.

Cost implications?

The likely extra costs including administration and verification of the new standard are not yet known. As it is new territory there is likely to be a period of cost uncertainty even in the early stages of HQMs launch as consultancies gain better understanding of the work involved and the differences / similarities to Code for Sustainable Homes.

There is some speculation as to what the increased house prices on schemes operating this new initiative will equate to. The question is; will the consumer be willing to pay for this scheme through increased house prices?

Code Level 5 and 6 Housing, Willmott Dixon, Stevenage, England.

Code for Sustainable Homes categories

	Category	Issue	Number of credits	Weighting factor (%)
1	Energy and CO_2 emissions	Ene 1: DER (m) Ene 2: Building fabric Ene 3: Internal lighting Ene 4: Drying space Ene 5: Energy-labelled white goods Ene 6: External lighting Ene 7: LZC technologies Ene 8: Cycle storage Ene 9: Home office	29	36.4
2	Water	Wat 1: Indoor water use (m) Wat 2: External water use	6	9.0
3	Materials	Mat 1: Environmental impact of materials (m) Mat 2: Responsible sourcing of materials – basic building elements Mat 3: Responsible sourcing of materials – finishing elements	24	7.2
4	Surface water run-off	Sur 1: Management of surface water run-off from developments (m) Sur 2: Flood risk	4	2.2
5	Waste	Was 1: Storage of non-recyclable waste and recyclable household wastes (m) Was 2: Construction site waste management (m) Was 3: Composting	7	6.4
6	Pollution	Pol 1: Global warming potential of insulants Pol 2: NO_x emissions	4	2.8
7	Health and well-being	Hea 1: Daylighting Hea 2: Sound insulation Hea 3: Private space Hea 4: Lifetime Homes (m at Level 6 only)	12	14.0
8	Management	Man 1: Home user guide Man 2: Considerate Constructors Scheme Man 3: Construction site impacts Man 4: Security	9	10.0
9	Ecology	Eco 1: Ecological value of site Eco 2: Ecological enhancement Eco 3: Protection of ecological features Eco 4: Change in ecological value of site Eco 5: Building footprint	9	12.0

WILLMOTT DIXON

References and further information

1. http://www.homequalitymark.com/
2. http://www.architectsjournal.co.uk/news/its-official-goodbye-code-for-sustainable-homes/8680639.article
3. http://www.building.co.uk/code-for-sustainable-homes-scrapped/5074697.article
4. http://www.bre.co.uk/housing-standards-review

Contact details

Claire Smith
Sustainable Development Consultant
Willmott Dixon Re-Thinking Ltd
Suite 401, The Spirella Building
Bridge Road, Letchworth
Hertfordshire SG6 4ET
T: 01462 476110
E: claire.smith@willmottdixon.co.uk

WILLMOTT DIXON