



ZERO CARBON HOMES

PROGRAMME DELIVERY TIMELINE

2016 Taskforce – 5th September 2013

Overview

Overall status – RED/AMBER, requires substantial attention

The overall status has been re-graded to **RED/AMBER** from RED. Recent announcements have provided greater clarity of intent but unfortunately little additional certainty on policy delivery to the industry as yet, as much depends on consultation outcomes. The group remain sceptical on whether the 2016 deadline for delivering Zero Carbon homes can be met. A key recommendation is that a new roadmap and critical path analysis is developed by industry and government to showing how delivery of Zero Carbon from 2016 will be achieved, and particularly when any legislative changes that may be required, will be made.

The group recognise that the recent publication of the Allowable Solutions and Housing Standards consultations has been helpful in providing industry with an insight on the possible legislation that might be forthcoming. However, the timing risk remains very serious without a detailed roadmap showing how and when the various issues that remain will be tackled in order to achieve the 2016 timescale.

It is pleasing that the Allowable Solutions debate has moved forward, but the uncertainty over policy implementation remains. In particular, a set of planning and timing issues arise. It is stated within the Allowable Solutions consultation that a '*longer familiarisation and/or transitional period than might be the case for any other change to Building Regulations*' may be required. In addition, there may be primary and secondary legislative changes required, which is likely to take time. This suggests that the scheme may not be available until after 2016. The overall status of Allowable Solutions has moved from RED - CRITICAL to RED/AMBER, but worries over the timescales for implementation caused the group to separately identify this aspect as RED.

The publication of some details of Part L 2013 is again helpful but as the Regulations now do not come into force until April 2014, the result is likely to be that very few homes will have been constructed before consideration of the revisions to Part L for 2016 is required. This further raises the concern over the current and future level of knowledge and skills in the sector.

The group were not able to fully consider the grading of FEES because detailed information on Part L 2013 was not available. Until this certainty and clarification is made the status remains at GREEN but the risk of it being substantially re-graded remains.

It is uncertain how the non domestic sector policies for implementation in 2019 will mesh with the domestic sector particularly where 'mixed use' developments are undertaken.

There remains an enormous amount to do and some difficult issues to solve in a very short time, and without immediate and concerted action by industry and government, the zero carbon timeline for 2016 remains in jeopardy.

This group is asked to consider:

- The current RAG status of each critical element which impacts on the journey to zero carbon 2016.
- What needs to be done by industry and government to improve the RAG status.

Key Points

Fabric Energy Efficiency Standard (FEES) (Green)

- The minimum FEES for low and zero carbon homes has been included within the Code for Sustainable Homes since November 2010, although there is little feedback from industry on its implementation due to the low numbers of homes built to date.
- Concern was again raised over the lack of skills and knowledge being embedded in the industry relating in general to increasing housing standards in relation to energy and carbon reduction. However this concern is reflected in the Knowledge & Skills and Scale up sections so does not influence the RAG status of the FEES itself.
- The group were not able to consider the status of this element in respect of the proposed introduction of an energy efficiency target for Part L 2013 because the detail of the final implementation is still to be released. The impact of the final position for Part L 2013, and any implications from the Housing Standards Review, will be considered at the next meeting. Therefore an element of risk remains that the status of this item may be re-graded.
- It is recognised that the FEES is likely to help ensure we are EPBD compliant for 2020.

Carbon Compliance (Red/Amber)

- There remains very limited action from government on the outstanding additional work from the Carbon Compliance Standard (CCS) report (Feb 2011), with the exception of the commissioning of the Design vs As-built Performance Gap project. The outstanding items include: i) modelling additional small dwellings, ii) determining the level for buildings over four stories, iii) determining the weather assumption to be used, and iv) determining 'development averaging'. Carrying out/ commissioning this work without further delay would cause the RAG status to be improved. (Government previously confirmed to the Task Force its intent to consider these issues in preparation for regulation change in 2016).
- The question on Carbon Compliance within the Allowable Solutions consultation is helpful, although timely publication of consultation responses and related policy statements will be required to provide certainty to industry.
- The group welcomed the fact that the Zero Carbon Hub has commissioned a cost review to further inform industry and government of the impact of the original proposals (Feb 2011).
- Opportunities for trialling Carbon Compliance will now need to be considered in light of the Housing Standards Review consultation which seeks to limit carbon and energy targets for new homes to those set in National Building Regulations. The group felt it should await the outcome of the consultation before reflecting on this aspect in respect of the RAG status.
- The potential simplification of the zero carbon hierarchy, and whether there was a need for a Carbon Compliance standard at all, was again briefly discussed but no conclusions were drawn at this stage.



Allowable Solutions (Red/Amber)

- The group welcomed the Allowable Solutions consultation, which it believes provides a good basis on which to take forward an agreement on the guiding principles for an Allowable Solutions framework. However they were extremely concerned about the implied timescales to get a scheme operational.
- This element has therefore been re-graded from RED - CRITICAL to RED/AMBER overall. However the group were clear that they believed the Policy aspect to be AMBER, but the Timing issue to be RED, requiring urgent and decisive action. This is explained below.

- Given that policy decisions may not be concluded until early 2014 at best, the legislative requirements for establishing Allowable Solutions arrangements in Building Regulations, the need to establish any national fund and verification arrangements and to generate liquidity in funding mechanisms, the group were very concerned that it may not be possible to have a fully operational Allowable Solutions regime in place from 2016.
- Urgent action is required to provide a critical path analysis showing the realistic implementation timeline for Allowable Solutions, which should show both government and industry actions, including for any required legislative changes. It should also take into account any likely delays due to purdah around the general election in May 2015.
- In terms of the overarching policy framework for Allowable Solutions, the group believed that the most important single policy decision will be to determine the price cap. Early announcement on this and other aspects of the framework will give some certainty to developer and industry future planning and would help towards re-grading this aspect towards GREEN on the RAG scale.
- The preference for a national policy framework for Allowable Solutions stated in the Consultation, together with the potential implications of the Housing Standards Review, may help to curtail Local Authorities creating their own bespoke Carbon Funds. This addresses the group's previous concerns over the proliferation of varying local methodologies for Allowable Solutions mechanisms.

Scaling up examples of low carbon and zero carbon homes (Red/Amber)

- Consistent 'scale up' and dissemination of learning prior to regulations being introduced is an important element of safely and efficiently delivering the zero carbon homes policy.
- There is a need to follow the Research, Development, Demonstration, Deployment cycle, but the group were very concerned about the lack of demonstrators which has resulted from a number of issues including funding being withdrawn from HCA to support advanced standards, uncertainty over the zero carbon definition, and the fact that the rate of build has been much slower than anticipated when the zero carbon policy was first announced. It was noted that a continuous improvement model with a knowledge sharing loop for the whole of industry is important to support 'scale-up'.
- There is therefore significant concern that the numbers of dwellings required to meet the 'scale up' requirements will not be met. This significantly reduces the predictability and planned nature of scale up and the opportunity to disseminate learning. However, projects such as AimC4, undertaken by industry, are expected to provide some learning.
- The Code for Sustainable Homes has been of use in providing examples to advanced standards but the Housing Standards Review is likely to curtail this small body of evidence fairly quickly
- To improve the RAG status, a driver needs to be put in place to allow for learning to be gathered and fed back to industry as a whole.

National compliance methodology - SAP (Red)

- The group emphasised that the issues surrounding SAP are a serious and severe risk to the delivery of Zero Carbon Homes from 2016 and hence the RAG status remains at RED.
- The immediate challenge for SAP is to get a Part L 2013 version of the software to the market this year, ideally by October. It was noted that the industry has offered to help BRE (as the SAP Contractor) to get a pre-commercial version out on trial.
- Serious concern was expressed over the potential effect on stalling innovation if changes are not made to SAP in a consistent and timely manner. In particular, barriers to achieving acceptance of products into appendix Q continues to restrict innovation.

- In order to improve the RAG status of this item, a clear and unambiguous roadmap is required for the delivery of SAP 2015, to provide certainty to industry to carryout R & D and enable the sector to 'model' 2016 building types.

Design vs As-built Performance (Green)

- The Zero Carbon Hub has been commissioned by DCLG to carry out a full review of the Design versus 'As Built' performance gap and has provided significant funding for this work. The work programme is focused on developing solutions without the need for regulation. Work Groups have been established and good progress is being made. An Interim Progress Report was published in July and the project is now in an evidence gathering and analysis phase.

Knowledge and Skills (Amber)

- The lack of policy clarity in some areas from government is delaying investment in the development of knowledge and skills across the individual construction sectors. It is helpful that the Skills Council is trying to develop solutions but the lack of certainty and limited house building output (particularly amongst SMEs) continues to leave the group seriously concerned.
- Organisations such as NHBC, HBF, HBA, FMB et al continue to work with CITB ConstructionSkills to assess the current needs of the industry and produce clear evidence of shortfalls going forward.
- Industry and government are working together to produce and disseminate information to aid understanding of the detail of Part L 2013 changes, including development of a 'pattern book'.
- A number of events are being held across England by the Zero Carbon Hub during September and October to provide an understanding of the Governments recent announcements on Allowable Solutions, Housing Standards and Part L 2013.

Community and large-scale energy solutions (Amber)

- Whilst the definition of Carbon Compliance does not in itself result in increased reliance on community and district energy solutions, there is a need for a suite of 'off the shelf' legal and administrative frameworks to help speed deployment and reduce costs (improve viability) where these networks are technically appropriate or stipulated locally. However concern remains on the legal issues surrounding the 'Landlord and Tenant' act with regard to community energy solutions.
- The DECC strategy on Heat offers some clarity on the role that district heating should play in the journey towards decarbonised heat supply in the UK. However, concern was expressed by the group around the policy gaps which still exist which may prevent this vision transforming into reality. At present the majority of the house building industry is focusing on individual/ small scale energy solutions and there is a lack of funding for community schemes.
- Allowable Solutions could potentially help the development of appropriate community-scale energy solutions, so clarity on this could move this element towards GREEN on the RAG scale.

Rob Pannell, Zero Carbon Hub

30th August 2013

Key



Status re-graded since last review

Appendix A

The Zero Carbon Hub maintains a series of timelines and convenes a cross-industry ‘Timeline Group’ on a regular basis to review and report progress.

Summary: Programme status by report

Programme Delivery Timeline Report No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Date	Oct 2008	Jan 2009	Apr 2009	Oct 2009	Jan 2010	Nov 2010	Mar 2011	Jun 2011	Sep 2011	Nov 2011	Jan 2012	May 2012	Jun 2013	Sep 2013	
OVERALL PROGRAMME STATUS	A	A	A	A	A	A	A	A	RA	RA	RA	RA	R	RA	
General comments	/	/	AG	AG	AG	/	/	/	/	/	/	/	/	/	
EPBD	/	/	A	A	G	/	/	/	/	/	/	/	/	/	
Definition of Zero Carbon	/	/	A	AG	(See below)										
Fabric Energy Efficiency Standard (FEES)	/	/	/	/	G	G	G	G	G	G	G	G	G	G	
Carbon Compliance	/	/	/	/	AG	G	G	G	AG	AG	A	A	RA	RA	
Allowable Solutions	/	/	/	/	R	RA	RA	R	R	R	R	R	RC	RA	
National Calculation Methodology - SAP	/	/	AG	RA	RA	RA	RA	R	R	R	R	R	R	R	
Design vs As-Built Performance	/	/	/	/	/	/	/	/	/	/	/	/	G	G	
Low carbon pre-production homes	Scaling up examples of low carbon and zero carbon homes	/	AG	AG	AG	AG	AG	A	A	A	A	A	A	RA	RA
Zero carbon prototype homes		/	AG	AG	AG										
Scale-up		/	AG	RA	RA										
Knowledge and Skills	/	/	A	A	A	AG	AG	A	A	A	A	A	A	A	
Miscellaneous	/	/	AG	AG	AG	/	/	/	/	/	/	/	/	/	
Community and large scale energy solutions	/	/	/	/	/	A	A	A	A	A	A	A	A	A	

KEY

R	Red	Highly problematic	Requires urgent and decisive action
RA	Red/Amber	Problematic	Requires substantial attention
A	Amber	Issues	Some aspects require substantial attention, some good
AG	Amber/Green	Mixed	Some aspects require substantial attention, others good
G	Green	Good	Requires refinement and systematic implementation

Please note that RC refers to ‘Red – Critical’

Appendix B

The Zero Carbon Hub maintains a series of timelines and convenes a cross-industry 'Timeline Group' on a regular basis to review and report progress. The Timeline Group met on the 27th August 2013 and considered what progress had been made since the previous meeting on 13th June 2013.

Timeline Group members

CHPA

CPA

EST

FMB

HBF x3

HBA x2

HCA

LGA

REA

SummitSkills

TCPA

UKGBC

ZCH Energy WG Chair

Observers

DCLG

DECC