



ZERO CARBON HOMES - PROGRAMME DELIVERY TIMELINE

2016 Taskforce – 15 November 2011

Overview

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 7 November and considered progress that had been made since the previous meeting on 6 September. This is a relatively short period and the general picture remains unchanged - one of urgent action in key areas to realise the ambition in the timescales set.

The overall status was downgraded from 'Amber' to 'Amber Red' in September and the reasons for this downgrading remain - the National Compliance methodology (i.e. SAP) remains at Red and outstanding work on the Carbon Compliance Standard has not progressed. There is also significant concern that the Code for Sustainable Homes (CfSH) has not been revised to reflect the zero carbon definition for 2016, which continues to confuse industry as a whole.

The three 'Asks' from the Taskforce ahead of its previous meeting have been responded to by the Zero Carbon Hub and discussed at the recent Timeline Group meeting. Firstly, Zero Carbon Hub has confirmed its commitment to supporting DCLG in finding an appropriate 'as built' performance mechanism to be included in Part L 2013 consultation and also to co-ordinating any future cross-industry work.

The Timeline Group has discussed 'Ask 2' and 'Ask 3' and has provided a response separately regarding role and membership of a 'SAP Integrity Group' ('Ask 2') and a separate group to consider future funding and governance of SAP ('Ask 3').

Overall programme status – Red Amber, some aspects require substantial attention.

A status summary table is shown in Appendix A.

Key Points

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

[There has been no change to this section since last report]

- HCA funding to support early adoption of low and zero carbon standards (including Code Level 4) is no longer available with their quality standard requirement now remaining at Code Level 3 for the current funding round. There is significant concern that the numbers required to meet the 'scale up' requirements will not easily be met. This significantly reduces the predictability and planned nature of scale up and the opportunity to disseminate learning.
- The Code for Sustainable Homes is an important aid to encourage early learning but there is concern that the late revision of the Code to reflect the latest zero carbon definition is creating confusion and sending the industry down blind alleys and/or resulting in unintended consequences.
- As of June 2011, 2,600 homes had been built to date to 44% or better than 2006 Building Regulations (i.e. energy requirements of Code Level 4) which is fewer than the minimum considered necessary at this stage (3,000 homes).
- Consistent scale up and dissemination of learning prior to regulations being introduced is an important element of safely and efficiently delivering this zero carbon homes policy.
- Some local authorities are seeking to push further with various levels of the Code and this is more apparent in London and the South of England. Local requirements should be encouraged to support a national scale up trajectory but, left to local decision making, the risk is that scale up is inefficient with inconsistent demands, lack of critical mass and little consolidation of feedback.

Fabric Energy Efficiency Standard (FEES) (Green)

- The minimum FEES for low and zero carbon homes has been embedded in the Code for Sustainable Homes (since November 2010).
- The Part L 2013 process is utilising the FEES methodology and considering the appropriate level on the path to zero carbon from 2016.
- FEES is a requirement of the HCA's Public Land Initiative and some 1,200 homes are either on site or in the final stages of procurement. FEES is also being tested in detail as part of a Hub-led monitoring project of 12 new flats in Rowner as part of the TSB 'Build Performance Evaluation' assessment.
- A number of companies (early adopters) have embedded FEES in to their business practices.

Carbon compliance (Amber Green)

- The outstanding additional work from the Carbon Compliance Standard (CCS) report is causing concern. This further work includes: i) modelling additional small dwellings, ii) determining the level for high rise buildings, iii) determining the weather assumption to be used, iv) determining the pathway and supporting 2013 regulations for delivering 'as built performance' and v) determining 'development averaging'.

- Further, the Code for Sustainable Homes has yet to reflect requirements of CCS, which is delaying the opportunity for early adopters to evaluate the Standard.
- The Carbon Compliance Task Group completed its considerations and recommended a metric and level based on 'as built' performance which has been endorsed by the Minister.
- The carbon compliance level determined for 2013 must provide a pathway for industry towards zero carbon in 2016. Zero Carbon Hub continues to aid and assist DCLG in the preparatory work for the Part L 2013 consultation.
- The Zero Carbon Hub remains committed to supporting DCLG in finding an appropriate 'as built' performance mechanism to be included in Part L 2013 consultation.
- The adoption of district heating solutions remains in its infancy and lacks strategic implementation. The loss of HCA funding is again further hampering the 'early adopters' from adequately testing these solutions where they make sense.

Allowable solutions (Red)

- Zero Carbon Hub facilitated industry engagement in the design of a framework for Allowable Solutions which needs to rapidly lead to the development of a fully detailed mechanism. Industry feedback suggests that the Hub proposal has been well received. However, the lack of a defined timescale for the development and adoption of a clear policy is hindering commercial certainty within industry.
- The Budget 2011 'Plan for Growth' report announced that the 2016 zero carbon definition would cover regulated energy only and also indicated that the carbon price would be at the carbon market price. The subsequent DCLG Zero Carbon Homes impact assessment used £46/tCO₂. Considerable concerns remain that this is not clarified as the actual cost of tCO₂ which creates difficulties for businesses making commercial decisions about future developments.
- The HCA is currently considering testing this approach to zero carbon on an existing committed project, and whilst this would be useful learning for the industry, lack of clarity is making the decision regarding scheme viability and calculating the size of the proxy 'Allowable Solution' difficult.
- Some local authorities are creating their own allowable solutions schemes. This reinforces the need for a national framework to ensure a level of consistency and avoid ineffective use of development capital for CO₂ abatement in the built environment.
- The Zero Carbon Hub has engaged with South Gloucestershire Council, HCA and Barratt Developments in setting up proposals to trial the Allowable Solutions Framework.
- The development of the National Planning Policy Framework (NPPF) and the discussions surrounding the Local Housing Delivery Group (ex Local Standards Framework) is helpful but there is no mention in the NPPF of Allowable Solutions, which is a cause for concern.
- The inclusion of a section on Allowable Solutions within the Part L 2013 consultation package would be a positive benefit to aid the development of this policy.

National compliance methodology - SAP (Red)

- SAP needs to be developed to ensure it is fit for use with low energy homes as outlined within the *Carbon Compliance for Tomorrows New Homes* report. This development is on the critical path and is urgent for both 2013 and 2016 regulations. The intention for all major changes to SAP to be undertaken as part of 2013 regulation changes providing consistency to industry in advance of the introduction of the zero carbon in 2016 has already been missed. This is of a serious concern and the lack of recognition to the multimillion pound impact on industry cannot be overstated.
- Disappointingly, the SAP consultation will not cover most of the aspects outlined in the *Carbon Compliance for Tomorrows New Homes* report. Recognising this fact, it is imperative that a roadmap to SAP 2015 is urgently developed and communicated to industry.
- The Timeline group has discussed 'Ask 2' and 'Ask 3' and has provided a response that has been sent separately to DCLG. As previously stated, changes to SAP will require resource and time and this does not appear to be underway. It is recognised that industry could assist with the development of SAP and this is a matter for urgent discussion with both DCLG and DECC.
- It is helpful that the overheating risk with homes built to higher energy efficiency standards (including those built to 2006 regulations) is being investigated by industry and DCLG, yet there is not currently an adequate tool for guiding designers and the approach to address this could fundamentally alter the development of SAP as well as the regulations.
- Changes as a consequence of the move to 'as built' performance need to be integrated into the SAP tool providing a better prediction of performance and providing a structure which rewards continuous improvement.

Knowledge and Skills (Amber)

- 2011 is considered to be a critical year for ensuring that the knowledge base, initially focusing on industry professionals, is developing fast enough to meet the necessary timeline. This does not appear to be happening at the speed and intensity desired. However it is helpful that some of the Climate Change skills fund is being used to help local authority planning departments gain a better understanding of the developing zero carbon definition and the development of the HCA's new enabling role should also make key tools and lessons learned available to public sector land owners and local authorities.
- With the current poor health of the industry there is little R&D capital and therefore concern that knowledge and skills are leaving the industry as opposed to being enhanced.
- The reforming of the Zero Carbon Hub and NHBC steering group funded by CITB ConstructionSkills will assess the current needs of the industry and produce clear evidence of shortfalls going forward. This group will be chaired by John Slater (Group Managing Director – Homes of Stewart Milne Group) with the first meeting taking place in December.

Community energy and infrastructure enabling actions (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 to have a suite of 'off the shelf' legal and administrative frameworks to speed deployment and reduce costs where this is stipulated locally or where such a solution would be more cost effective in a regulated market.
- Currently, there is not a coordinated national strategy for deployment of distributed energy solutions, which has resulted in numerous local policies setting out varying requirements for distributed or decentralised energy solutions in new developments. This is putting at risk the deployment of decentralised community energy solutions in appropriate locations in line with DECC's roadmap for future energy solutions.
- The Government's Housing Strategy, the launch of which is due soon, offers some significant opportunities (e.g. 'Growing Places' funding for LEPs includes potential to fund infrastructure, which hopefully will include community energy schemes).
- The NPPF needs to stress the importance of new development being planned and delivered hand in hand with the development and deployment of low and zero carbon energy infrastructure, including, where appropriate, community energy solutions.

Rob Pannell
8 November 2011

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Summary: Programme status by report

Programme Delivery Timeline Report No.	1	2	3	4	5	6	7	8	9	10
Date	Oct 2008	Jan 2009	Apr 2009	Oct 2009	Jan 2010	Nov 2010	Mar 2011	Jun 2011	Sep 2011	Nov 2011
OVERALL PROGRAMME STATUS	A	A	A	A	A	A	A	A	RA	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
Carbon Compliance	/	/	/	/	AG	G	G	G	AG	AG
Allowable Solutions	/	/	/	/	R	RA	RA	R	R	R
National Calculation Methodology - SAP	/	/	AG	RA	RA	RA	RA	R	R	R
Low carbon pre-production homes	/	/	AG	AG	AG	AG	AG	A	A	A
Zero carbon prototype homes	/	/	AG	AG	AG					
Scale-up	/	/	AG	RA	RA					
Knowledge and Skills	/	/	A	A	A	AG	AG	A	A	A
Miscellaneous	/	/	AG	AG	AG	/	/	/	/	/
Community energy and infrastructure enabling actions	/	/	/	/	/	A	A	A	A	A

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

KEY: