



ZERO CARBON HOMES PROGRAMME DELIVERY

2016 Taskforce Meeting
to be held on Wednesday 29 April 2009

Introduction

The Callcut timeline presented in previous meetings has been updated by a small group in advance of the first formal Zero Carbon Hub Timeline Group meeting in May. This initial update will be developed further to provide a more comprehensive delivery programme with summary milestones. This document should still be considered an initial view.

As everyone is well aware, 2008 saw a significant fall in the levels of house-building although since January this situation has begun to stabilise, albeit at a very significantly reduced level of activity. This has implications for industry's ability (house builders and supply chain in particular) to undertake the necessary development work. Although it is important to differentiate between the short to medium term impacts on housing delivery and the medium to longer term timeframe for zero carbon homes, it remains vital that Government-funded house-building leads the development of the low carbon market.

In order to establish a reasonable level of confidence in the programme timeline, more work is still required to estimate the implications of the industry's situation and to understand the impacts of key milestone decisions.

Programme status (initial update) – **Amber**, actions are required to ensure timescale is maintained. For programme Gantt chart please see Appendix A.

General comments (amber/green):

- Many factors influence the overall number of homes built - the programme status refers to mainstream/mass scale delivery of zero carbon homes, not a specific number.
- Despite the current state of the industry, a reasonable level of development work appears to continue to be undertaken. However, house builder initiatives remain low and appear to be decreasing as planning consents are renegotiated.

Key timeline assumptions:

- That the industry is able to recover to a reasonable level of capacity and profitability within a relatively short period.
- That government financial support via: TSB, EPSRC, EST, Carbon Trust, CLG, DECC, etc. is maintained/increased.
- A definition of zero carbon is adopted which is pragmatic.

Energy Performance in Building Directive (EPBD) (amber)

- The recast of the EPBD is proposing minimum standards for buildings across the EU. Whilst the timelines and scope being suggested may ultimately be consistent with the UK's ambitions, it is important that this doesn't introduce uncertainties which serve to slow progress. This will be reviewed over the coming months.

Definition of zero carbon (amber)

- A zero carbon definition, together with an updated SAP, provides architects, house builders, consultants, construction products manufacturers and energy equipment/ service providers with the necessary clarity/certainty to develop solutions and determine cost effectiveness.
- The definition of zero carbon is a fundamental point on the critical path and is delayed. A policy statement is expected in the summer; further substantial slippage from this date would make hitting the 2016 timeline even more complex.
- The timeline above assumed circa four years' transition from implementation of building regulations through to mass scale build. Any decision for a shorter transition may have program delivery implications.
- The zero carbon definition consultation proposed that the minimum energy requirements for homes would be defined with the normal Part L development process. This was a considerable concern as it would prevent the development of standard solutions with a clear view of the 2016 objective and was inconsistent with defining carbon compliance. Feedback from the zero carbon 'Have your say' events overwhelmingly supported the view that early sight of the energy efficiency standard was required and this was needed by 2010.

Standard Assessment Procedure SAP (amber/green)

- The implications of the zero carbon definition cannot be fully understood, and designs confidently developed, unless a version of SAP is available which is close to that expected for 2016.
- A pre-release version of SAP 2009 is now anticipated in the Spring 09. This is an important factor on the critical path and has been delayed, the impact of which would have been more visible had the current economic climate also impacted the delivery of low carbon prototype homes.
- It is apparent that further developments of the carbon compliance software (SAP) and/or the underlying assumptions will be required prior to 2016. Such changes could substantially alter the tools outputs and therefore impact building design. This would undermine the efforts of companies and house builders, create uncertainty and threaten the delivery timeline. To mitigate this, an expert task group will be formed to review these potential areas, take a view on the likelihood, quantify the effect, and determine how to forewarn of the likely impacts in a manner that could be used to develop designs ahead of any formal compliance tool changes. The output of the group would be a report with recommendations to CLG and DECC.

Low carbon pre-production homes (amber/green)

- Many -25%DER homes (energy requirements of Code Level 3) are in the design phase, however few have actually been built to date.
- Whilst some housebuilders are indicating that -25%DER is relatively clear-cut, concern has been expressed that there is currently a lack of detailed guidance to assist the small and medium housebuilders. These needs are being reviewed by the ZC Hub.
- Few -44%DER homes (energy requirements of level 4 of the CfSH) are in design phase, very few are built and this may well have an impact on scale up.

Zero carbon prototype homes (amber/green)

- Concept designs zero carbon are significantly impacted by the lack of an agreed definition for zero carbon.
- Current economic circumstances are resulting in relatively little focus on homes beyond the -44%DER although a few examples are being pursued.
- A few examples of prototype -100%DER and zero carbon dwellings have been built and are attracting significant interest.
- The English Partnerships 'Carbon Challenge' currently has two sites at a detailed design stage. One now has detailed planning consent. These are being designed to the original zero carbon definition.

Scale-up (amber/green)

- Slower roll out of prototype homes will impact the scale of the initial pre-production build. This in turn may impact the mainstreaming of knowledge and skills as well as the development of the supply chain. This will be reviewed over the coming months.
- In the current climate the Homes and Communities Agency, local authorities, regional assemblies and the devolved governments have an **even more** important role to play in building low-zero carbon homes volume. In order for this to be effective it is vital that the types of examples, scale and phasing are consistent with the wider industry's needs and feed a national delivery programme. The Zero Carbon Hub will develop this as part of its work.

Assumptions / needs:

- The low **and** zero carbon new homes agenda continues to be led by government-funded house-building in support of design development and supply chain scale up.
- That local authorities' planning requirements, regional and local initiatives for low energy homes (or built to a Code level) are focused to assist the transition of the industry to low carbon developments rather than being ends in themselves (i.e. focusing on specific issues and practices, not just specific Code levels).
- High profile initiatives such as Eco Towns, Carbon Challenge etc. will continue to be needed.

Skills (amber)

- Zero Carbon Hub is reviewing the skills and knowledge requirements in the context of the current market conditions, particularly those key roles required early in the zero carbon roll out such as planners, architects, technicians and building control.

Miscellaneous (amber/green)

- Construction products manufacturers are investing considerable time and money in evaluating current product solutions for low carbon and zero carbon and determining future product needs.
- Whilst mass scale zero carbon house-building is only due circa 2020, the depression of house prices may last some considerable time making the 'overall' regulatory financial burden considerable and impacting financial viability of sites for the foreseeable future.

David Adams
23 April 2009

Zero carbon homes delivery time line

Apr 09 initial update

