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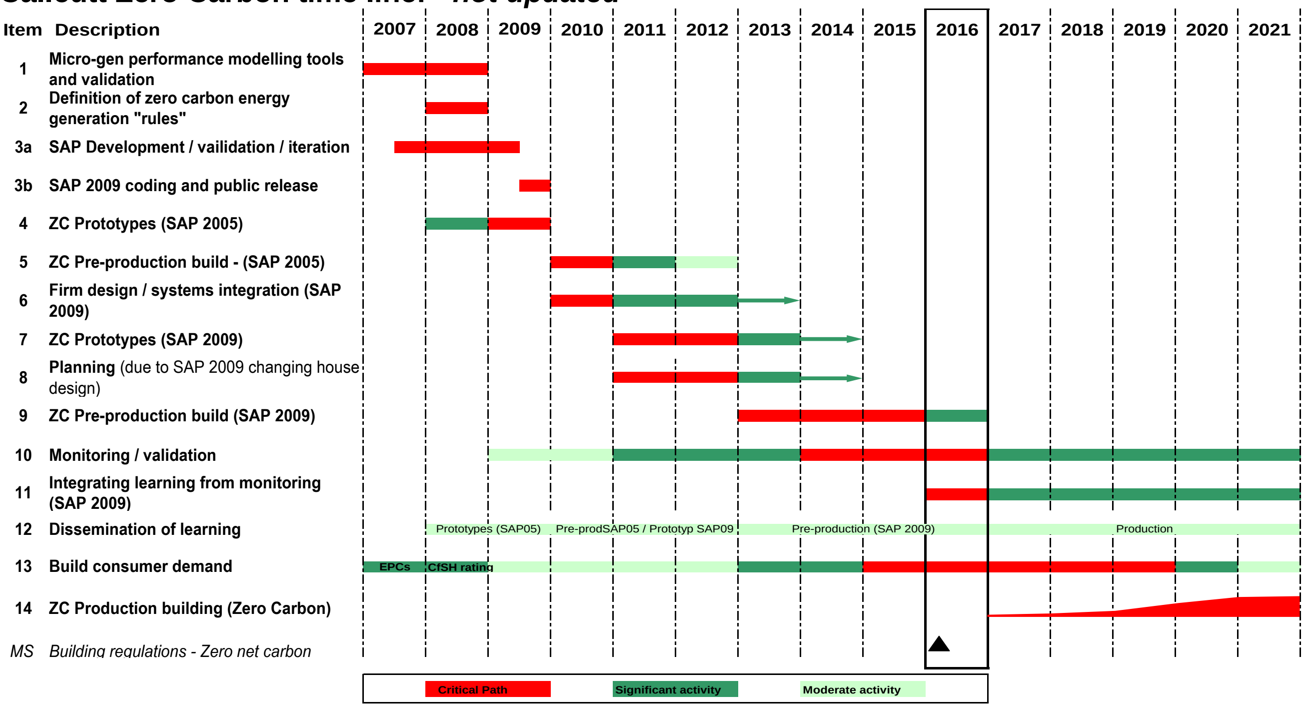
# ZERO CARBON HOMES PROGRAMME DELIVERY

2016 Taskforce Meeting
to be held on Tuesday 27 January 2009

**Introduction**
A preliminary view of the Zero Carbon Homes programme delivery status (based on the Callcutt Review time line) was provided at the previous meeting held last October. A commitment was made for the Hub to review this during the next six months using the workstreams to help develop a more comprehensive delivery programme with summary milestones. This document is still only an initial view as the workstream structure for formally reviewing progress is in its infancy.

**Programme status** (preliminary view) **– Amber,** actions are required to ensure timescale is maintained.

**Callcutt Zero Carbon time line: -** ***not updated***



Since October the short and medium term economic prospects have worsened considerably and this is affecting the industry's ability (particularly housebuilders and the supply chain) to undertake necessary research and development. 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 increasingly important that Government funded house-building leads the development of the low carbon market. This has always been an important assumption, but with the current downturn in house-building, it now becomes critical in order for progress to be maintained.

In order to determine a reasonable level of confidence in the programme timeline considerably more work is required to estimate the implications of the industry's situation and to understand the impacts of key milestone decisions. The structure of the industry has changed significantly in the last few months and housing markets will likely have changed further more before recovery begins.

## General comments:

- Many factors influence the overall number of homes that are built. Therefore the programme status refers to mainstream/mass scale delivery of zero carbon homes, not a specific number.
- Despite the current state of the industry (housebuilders and supply chain in particular), a reasonable level of research and development work appears is being undertaken, driven primarily by public sector requirements, a proactive supply chain and particular housebuilders which are engaged with the challenge.

*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 CLG, DECC, Carbon Trust, EST, EPSRC, Technology Strategy Board, etc. is maintained or increased.

## Definition of zero carbon

- A zero carbon definition, together with an updated SAP, provides: architects, housebuilders, consultants, construction products manufacturers and 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. This may impact the overall timing.
- The time line above assumed circa four years transition from implementation of building regulations (in 2016) through to mass scale build. Any decision for a shorter transition may have programme delivery implications.
- Unlike the original zero carbon definition, the minimum energy requirements for homes will evidently not be defined in this consultation. The implications of this, and the timing required, will be explored during the Zero Carbon Hub consultation events.

## Standard Assessment Procedure

- 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 2009. This is an important factor on the critical path and is delayed, which may have implications on the overall delivery.
- It is assumed that sufficient resource will be made available for key SAP developments to be undertaken at the appropriate times – this is critical and some concerns have been expressed. This will be tracked by the Zero Carbon Hub.

**Low carbon pre-production homes**

- Many -25%DER homes (energy requirements of Level 3 of the Code for Sustainable Homes) are in the design phase, however few have been actually 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 small and medium housebuilders. These needs are being reviewed by the Zero Carbon Hub.
- Few -44%DER homes (energy requirements of Level 4 of the Code for Sustainable Homes) are in design phase, very few are built.

**Zero Carbon prototype homes**

- Concept designs, for -100% DER (level 5 energy requirements) and zero carbon are significantly impacted by the lack of an agreed definition for zero carbon. This is particularly impacting large strategic site considerations.
- A few examples of prototype -100%DER and zero carbon homes have been built and are attracting significant interest.
- The English Partnerships 'Carbon Challenge' currently has two sites at a detailed design stage. These are being designed to the original zero carbon definition.

## Scale-up

- 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 up volume of low and zero carbon homes. 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:*

- That 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 authority planning requirements and other 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 developed.

## Miscellaneous

- Construction products manufacturers are investing considerable time and money in evaluating current product solutions for low 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.
- There are both short and long term implications of a shrinking skill base associated with the decline in the market and resultant laying-off of key staff. These will be considered by the Zero Carbon Hub during the coming months.

David Adams
23 January 2009