

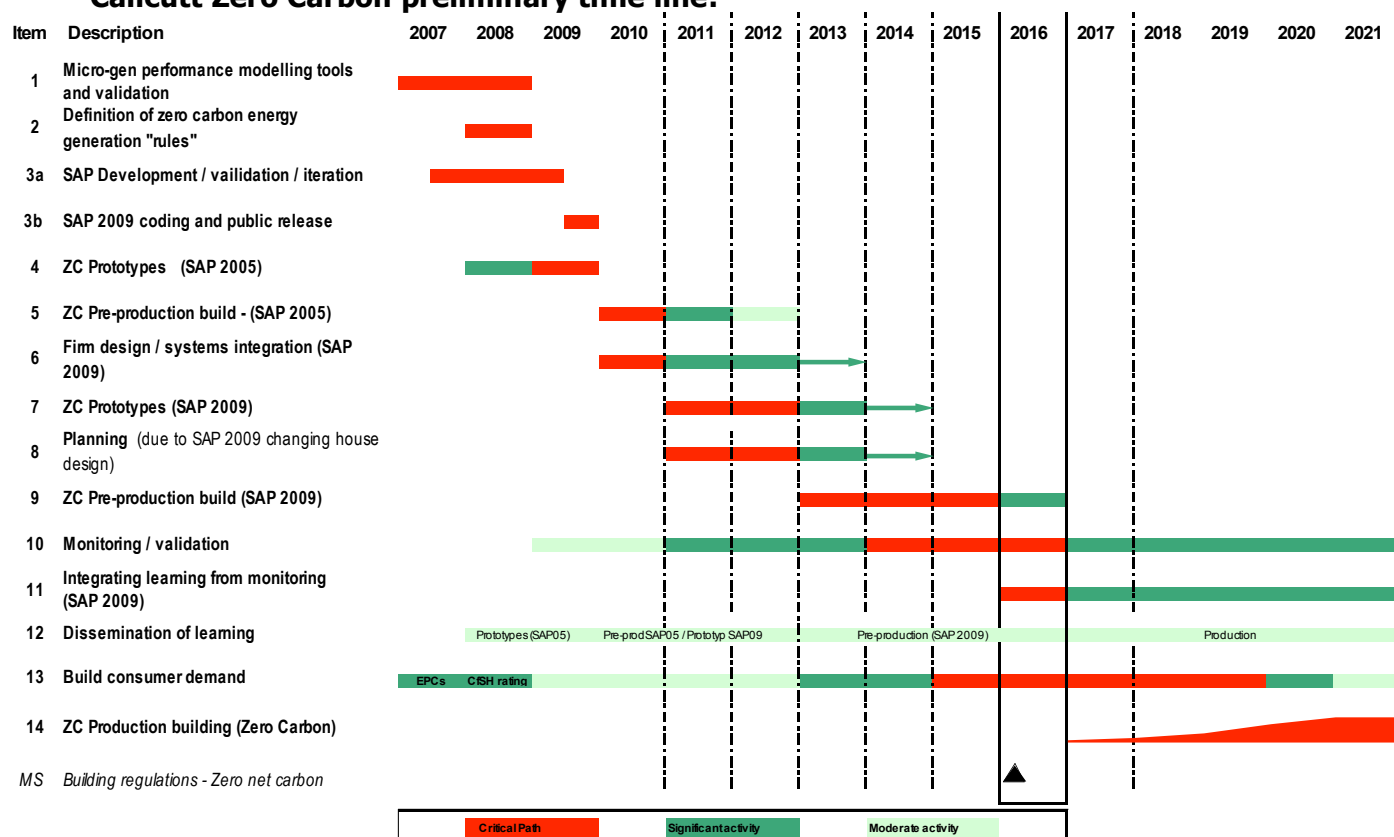
# Zero Carbon Homes Programme delivery

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The Callcutt review of housebuilding delivery developed the preliminary time line indicated below. The ZC Hub will, during the course of the next 6 months, engage the work-streams in developing a more comprehensive delivery programme with summary milestones. It is suggested that this would form the basis for future progress reviews with the 2016 task Force. This document is only an initial view as the work-stream structure for formally reviewing progress is only just being put into place.

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

## Callcutt Zero Carbon preliminary time line:



### General comments:

- The housebuilding context has changed considerably since the preliminary time line was developed. For the next meeting the ZC Hub will undertake a rapid review of the timeline to Zero Carbon developed for the Callcutt review to assess the implications of the current market downturn and suggest actions necessary to maintain the schedule.

### Definition of zero carbon

- Having a final definition of Zero Carbon was firmly on the critical path as it sets the context for all of the steps along the way. A definition, together with an updated SAP, provides: architects, housebuilders, consultants, construction products manufactures and energy equipment / service providers with the framework to develop solutions and determine cost effectiveness.
- There are signs that the current rapid development of understanding across the industry is increasingly being impeded by the lack of a final definition.

### Microgeneration

- The development of the microgeneration certification scheme has started in line with the program needs.
- The recent announcement on feed in tariffs is welcomed, the impact this may have on financial viability, as well as the competitive positioning of solutions, will not be known until the pricing is announced. To be effective for new build the pricing would need to be set to

create mainstream, hence industrial scale, demand and therefore drive equipment cost reductions.

### **Standard Assessment Procedure**

- A pre-release version of SAP 2009 is anticipated in the autumn. As the ZC Hub is only just launched, involvement to date has been limited; however, a full update will be given at the next meeting.
- Many organisations have undertaken considerable work evaluating the potential dwelling, product and application design and cost implications of low and zero carbon. When a version of SAP 2009 is released much of this work will have to be repeated. Hence the need for a significant step to be taken during this iteration to ensure that SAP is suitable for low energy dwellings without further fundamental changes.

### **Low carbon pre-production homes**

- Many -25%DER homes (energy requirements of level 3 CfSH) 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 detail guidance to assist the small and medium housebuilders. These needs will be reviewed by the ZC Hub.
- Few -44%DER homes (level 4 energy requirements) 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 dwellings have been built and are attracting significant interest.
- The English Partnerships 'Carbon Challenge' currently has two sites at a detail design stage. A decision is awaited on a third. These are being designed to the original ZC definition.

### **Scale-up**

- Particular housebuilders are continuing to develop their thoughts on low and Zero Carbon solutions despite the current poor trading conditions. Strategies are being developed at a business level but it will be necessary to review the way sufficient financially viable developments are brought forward in order to scale the industry particularly for the higher levels of the code. In the current climate the HCA, LAs, Regional Assemblies and the Devolved Governments have an even more important role to play in building volume. In order for this to be effective it is vital that the types of examples, scale and phasing are consistent with the wider industries needs and feed a national delivery programme. It may be that, in the current environment, multiple different sites focus on demonstrating specific techniques, for example 'thermal bridging', not solely specific code levels. The ZC Hub will develop this as part of its work.
- Eco Towns, whilst Zero Carbon overall, have a housing energy requirement for Code level 4 (-44%DER). Whilst this provides helpful scaling for the expected 2013 building regs this will not provide volume in advance of the requirement for Zero Carbon homes from 2016.

### **Miscellaneous**

- Development of energy service offerings is being impacted by the issues surrounding 'private wire'. This is affecting both potential schemes for higher levels of the code but also potential solutions for -25%DER and -44%DER (energy solutions for levels 3 and 4).
- There is concern that many solutions for low carbon, not just Zero Carbon, are focusing on a single solution, biomass, with potential national strategic implications which need to be understood.
- Construction products manufacturers are investing considerable time in evaluating current product solutions for low carbon and Zero Carbon and determining future product needs.
- Concern has been expressed that, particularly in the current market, the financial burden of the 'overall' regulatory burden will have considerable impact on 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. These will be considered by the ZC Hub during the coming months.