
RIBA response to *Next steps to zero carbon homes: small sites exemption consultation (DCLG)*

Question 1. Should the exemption be targeted at site size, developer size, or a combination of both? Is there any evidence to support the choice made?

Neither. We reject the proposition that exemptions from zero carbon regulations would bring forward more house building activity from small builders. Both of the options defined in the consultation as proxies for size of house builder (size of site and number of employees) offer disadvantages sufficient to make them unworkable, which we believe could stall housing development.

We are strongly against any sort of exemptions with the view that it is already possible to deliver the planned 2016 zero carbon homes standard cost-effectively. Allowing a large proportion of the house building industry to opt out of improving their products and practices presents a substantial missed opportunity for the UK economy, which will perpetuate the construction of new underperforming buildings that will be expensive to run and continue to harm the environment.

The introduction of exemptions defies the reason for establishing the Zero Carbon Standard by Government. Additionally, not enough weight has been given to the impact of the exemptions on the UK's statutory obligation to reduce carbon emissions by 80% by 2050. As the Government has proposed a reduction of the ambition of the minimum build standards in summer this year, it is difficult to see the justification for further watering down of the definition.

Introducing an exemption for small sites would lead to house buyer confusion, make zero carbon home providers unable to compete in the land purchase bidding process, and fragment the supply chain.

Finally, the allowable solutions mechanism was designed specifically to enable the costs of meeting the full zero carbon standard to be reduced for sites that are unfairly burdened due to physical constraints, such as size. Smaller building sites are specifically the types of development that the allowable solutions mechanism was designed to support towards delivering zero carbon. It therefore seems counter-productive that these sites are now to be exempt from the part of the definition designed to ensure they can cost effectively comply.

The RIBA therefore does not support an exemption for small house builders or small sites. Our position is based on the following:

I. Zero carbon home standard 2016 is no barrier to housing supply for small site developers

It is widely understood that there is a pressing need to supply a large number of new homes for families across the UK. It is clear that house building must remain financially viable for the private sector which will deliver a large proportion of the housing needed. In responding to the urgent need for new homes, quality and efficiency must not be compromised. Families must be able to afford to heat and light their homes in the future.

It is already affordable to achieve the zero carbon home 2016 standard through existing fabric efficiency measures, such as Passivhaus. We therefore do not think small builders would be financially disadvantaged by building to a high energy efficiency standard, if they were made aware of the merits of these measures.

There is a range of evidence-based examples that demonstrate that highly fabric energy efficient homes do not cost more than conventional construction if cost strategies, program management and environmental strategies are built into project plans at the procurement stage.

There is also evidence which shows the cost achieving the zero carbon home standard is and has been falling dramatically over the past few years.

For example, the typical additional cost of building a zero carbon semi-detached house has halved since 2011 and is expected to fall further by 2020 when most homes will actually need to be built to this standard.¹ This must be compared to the reduction in the annual energy bill for families for generations to come. The annual bill for a family living in a zero carbon 3 bedroom semi-detached home will be £1,220 less than for a Victorian home.²

The additional cost of building zero carbon homes is falling continuously as the supply chain evolves and the issue of urgent housing supply need not undermine the vision of all new homes being zero carbon by 2016.

II. Exemptions from the zero carbon regulations will not help remove the key barriers to house building for small builders

The consultation document does not provide the evidence for its assumption that an exemption from zero carbon regulations will be effective in bringing more small house builders into the market or enabling small sites to be developed.

According to a recent NHBC report (Oct 2014), the top barriers identified in the quantitative survey were: planning and process conditions, obtaining finance, availability and cost of land, and skilled labour and cost of labour. Legislation/red tape was named by only 4% of the 363 companies surveyed.

It is not clear how the exemption proposed will help to overcome these issues. We believe it would be more constructive if Government focused on addressing those key business challenges for small house builders, which would have a more positive impact on housing supply and quality.

III. The UK cannot afford such a high proportion of new dwellings to target anything less than zero carbon- both for environmental and economic reasons.

According to the consultation document, one in five new homes could be exempt from part, or all, of the zero carbon standard should the exemptions be introduced. This poses a number of problems which have not been given sufficient weight in the risk assessment.

¹ ZCH and Sweett Group, Feb 2014, [Cost analysis: meeting the zero carbon standard](#).

² NHBC Foundation and ZCH (Feb 2014). [Zero carbon housing: annual energy running](#).

Firstly, not enough consideration has been given to how the exemptions will impact the UK's statutory obligations to comply with the European Unions' Energy Efficiency Directive and the Energy Performance of Buildings Directive, and ability to meet the recently approved EU target for nation states to improve energy efficiency 'by at least 27% by 2030' (2030 framework for climate and energy policies).

It may seem that because in any one year new dwellings built that year only contribute 0.3% of domestic emissions it is not significant to allow some exemptions from the zero carbon standard (the other 99.7% come from existing dwellings). However, the zero carbon standard has been created precisely because reducing emissions from the existing stock of 26 million dwellings in line with national targets is so challenging that new dwellings cannot be allowed to add to the emissions burden. Within this context, any exemption from the new-build standard is unacceptable.

Secondly, energy efficiency improvements in buildings have been shown to offer the most promising area for regaining and maintaining long-term growth in the construction sector by several EU studies³. Relaxing the zero carbon target for a large proportion of new builds is likely to confine the skill of delivering zero carbon buildings to a niche of practitioners at a time when pressure to improve the performance of buildings is set to increase. This may eventually lead to the need for the UK to import good quality supply chains from other EU countries which will further damage the industry's recovery.

IV. The exemptions will result in house buyer confusion and fragment the supply chain, which will have a knock-on effect on the economy.

Exempting up to a fifth of new homes (at 2013 rates) from the zero carbon homes standard will create confusion in the housing market.

If house buyers cannot expect the same standard of a new home built on a small site to that built on a large site, the value of highly efficient new homes will be undermined. Clear market signals are needed if the efficiency of homes is to be recognised in house prices.

We also need to avoid a situation where home purchasers, tenants or registered social landlords will not understand why two dwellings with radically differing performance are both labelled zero carbon despite one having made efforts to reduce and offset emissions through FEES, Carbon Compliance and Allowable Solutions, whilst the other has done very little if anything above regulatory baselines.

The exemption would create fragmentation in the supply chains delivering products and services for differently defined 'zero carbon' new homes. Fragmentation leads to a lower potential for cost reduction through the whole supply chain. With small builders making up the smaller part of the demand it is logical that this market will be less well served, suffering from smaller and slower cost reductions. Therefore contrary

³ See for example

<http://ec.europa.eu/DocsRoom/documents/4060/attachments/1/translations/en/renditions/native>

(page 6); <http://energycoalition.eu/new-studies-show-higher-2030-energy-efficiency-target-cost-effective> ;

http://www.eurima.org/uploads/ModuleXtender/Publications/105/20131011_Coalition_position_on_2030.pdf; or

http://ec.europa.eu/energy/efficiency/buildings/doc/energy_efficiency_investment_potential_buildings.pdf

to the intention of this consultation, higher costs for the smaller builder will be created.

V. We need a level-playing field in which high housing standards force down land values, not low standards that force them up. This is the best way to achieve good quality homes cost-effectively.

Relaxing zero carbon targets for such a large percentage of new construction would make practitioners and contractors offering zero carbon homes built to the 2016 standard uncompetitive in the bidding process. The bidder that delivers the minimum legal environmental performance specification will be able to offer a higher purchase price in a competitive land purchase bid.

A rival bidder offering to meet the zero carbon homes standard 2016 will probably have higher initial construction costs until economies of scale from the wider industry reduces costs for everyone. This means the zero carbon bidder may effectively be punished for not delivering a worse specification. We cannot allow zero carbon home providers to be penalised for not delivering lower quality homes. A level playing field is needed to address this.

The consultation document identifies extra costs in terms of land acquisition and purchasing and availability of suitable small sites as barriers to small house builders. To overcome both the issues small builders face in acquiring land, and zero carbon home providers potentially losing out in the bidding process, we recommend Government shifts its focus to forcing down land values through high housing standards in the long-term, instead of introducing low standards through exemptions, which will force the land values up in the immediate term.

The current model means that most profits are made from the increment in land value rather than the product itself. Ensuring that there are not drastic differences between homes based on energy standards should help to change the site viability business model to one in which the quality of the houses is a factor; instead of introducing small site exemptions.

Question 2. If the Government chose a site size exemption, what level should this be set at and why?

We are against small site exemptions for the reasons we set out in our response to question 1.

In addition, we believe that if a decision to introduce a small site exemption is made, both of the options defined in the consultation as proxies for size of house builder (size of site and number of employees) offer disadvantages sufficient to make them unworkable.

Creating a disparity between the treatment of different sizes of sites opens up the possibility of unforeseen and undesirable outcomes, and possibly exploitation, where larger sites are broken down to qualify for the exemption. The artificial division or staging of sites to attract an exemption could slow down the building of new homes, as well as impact fundamental design, orientation and place-making principles.

If defined as 10 units or less, small site developments exempt from the zero carbon homes standard 2016 would make up a significant proportion of new build dwellings. As we stated in our response to question 1, the UK cannot afford to have such a large number of new buildings adding to the carbon emissions reduction challenge.

We are concerned the exemptions will create large regional disparities in the quality of new housing, which will have a particularly negative knock-on effect on those living in fuel poverty in rural areas.

While the consultation document puts the national figure of small sites exempt from the zero carbon standard at over 20% of new builds, on a regional basis this percentage will be far higher for large parts of the country. It will be particularly exaggerated in rural areas, where the consultation document identified that 80% of developments are on small sites.

The exemptions will lead to rural areas losing out on the opportunity to provide households with the highest level of energy efficiency, and the ability to generate their own free, clean power.

An exemption will also fragment supply chains delivering products and services for zero carbon and non-zero carbon new homes. The fragmentation will lead to lower cost reduction potential than that generated by volume. Small builders, comprising a smaller proportion of demand, will also be less well served by the market and therefore will experience smaller and slower cost reductions. The result will be slower and more expensive zero carbon home delivery, and higher costs for small builders to deliver non-zero carbon new homes.

Question 3. If the Government chose a developer size exemption, what level should this be set at and why?

We are against small site exemptions for the reasons we set out in our response to question 1.

Question 4. What do you think the scope of the exemption should cover? An exemption for the allowable solutions scheme only, or an additional exemption from Building Regulations requirements? Do you have any evidence to support the choice between these options?

We are concerned that Government has included the creation of a two-tiered approach to Building Regulations as an option, which would lead to homes built on smaller developments being designed to lower energy standards than those on a larger site. In this option smaller sites would not only be exempt from the allowable solutions mechanism but would be required to achieve lower building standards.

A two-tiered regulatory environment would cause huge house buyer confusion, increased cost and fragmentation in the supply chain, and increased burden on Building Control bodies. We are glad that Government is clear that this is not its preferred approach.

However, RIBA also cannot support an exemption from the allowable solutions part of the definition.

We disagree with the key assertion in the consultation that, in exempting small sites from the just the allowable solutions part of the definition, “*all new housing in England would meet a consistently high level of energy efficiency and carbon reductions. Consumers would save the same amount of money on their energy bills whether buying a home built on a small site.*” In this assertion, Government has overlooked the first of the four delivery mechanisms it has proposed for allowable solutions⁴, which is for house builders to deliver more carbon savings on the site of new homes to create greater bill savings to the householder. To assume that no house builders will attempt to deliver any further carbon savings (above the minimum on-site standard) is to overlook the basic economic sense of investing to add value to assets and the increasing customer appeal of lower running costs and technologies, such as PV.

The allowable solutions mechanism was designed specifically to enable the costs of meeting the full zero carbon standard to be reduced for sites that are unfairly burdened due to physical constraints, such as size. Smaller building sites are specifically the types of development that the allowable solutions mechanism was designed to support towards delivering zero carbon. It therefore seems counter-productive that these sites are now to be exempt from the part of the definition designed to ensure they can cost effectively comply.

Question 5. What are your views on the proposed review period for the exemption?

We are against any period for the exemption.

New homes built to the new zero carbon homes standard 2016 will already be built within an unacceptable time from 2016, due to planning permissions requiring compliance with the Building Regulations in force at the time, so a delay in completion means that homes coming to the market for the first time are often built to standards that are a number of iterations out of date.

Imposing an exemption period will further stagnate the practical delivery of homes built to the new zero carbon homes standard.

There is also evidence from the work on the Zero Carbon Hub’s Performance Gap project that smaller builders are actually more responsive to changes in Part L of Building Regulations as they are less likely to enjoy the relaxations made available through transitional arrangements (exploited on pre-registered larger sites)⁵. To create a level playing field it would be better to tighten transition arrangements so that larger builders on larger sites were required to implement new regulations from the date of national regulation.

⁴ <https://www.gov.uk/government/consultations/next-steps-to-zero-carbon-homes-allowable-solutions>

⁵ <http://www.zerocarbonhub.org/current-projects/performance-gap>