



**Association
for the
Conservation
of Energy**

Zero Carbon Homes Regulations Consultation

ACE response - July 2007

The Association for the Conservation of Energy is a lobbying, campaigning and policy research organisation, and has worked in the field of energy efficiency since 1981. Our lobbying and campaigning work represents the interests of our membership: major manufacturers and distributors of energy saving equipment in the United Kingdom. Our policy research is funded independently, and is focused on four key themes: policies and programmes to encourage increased energy efficiency; the environmental benefits of increased energy efficiency; the social impacts of energy use and of investment in energy efficiency measures; and organisational roles in the process of implementing energy efficiency policy.

We very much welcome the opportunity to submit this response to the Government.

For further information please contact

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ACE welcomes this proposed relief from Stamp Duty from the Government as it is a contribution to achieving the UK target, as presently set out in the draft Climate Change Bill, to reduce CO2 emissions by 60% below 1990 baseline levels by 2050¹.

ACE welcomes this proposed relief as it establishes a precedent for further tax concessions that can ease the way for the creation of low and zero carbon buildings. Traditionally, the Treasury has been very reluctant to make any such tax concessions, presumably because of the anticipated loss of revenue. ACE's response, in general, is that such tax concessions can be worthwhile if they help create economies of scale to produce a lower carbon product, presently unprofitable, that can eventually be built and sold in the market at a viable price. The Treasury always has the option of applying taxation at this later time. The view should be taken by the Treasury that there is no point in taxing something that has not happened yet – it is better to help make it viable, and then it can be taxed as a new form of revenue – an investment by the state, as it were.

ACE also welcomes this proposed concession from the Government as potentially helping create zero carbon housing in the short-term, before they are required as promised by the Government's proposed Building Regulation changes after 2016. Low and zero carbon building is still in its infancy in the UK and any concession that reduce purchase costs should encourage some builders on the margins, although the effects of this concession can easily be overestimated in such a new situation.

That being said, there are a number of issues with, and questions about, the present proposals by the Treasury that if not corrected or dealt with in some constructive way, could undermine the concession and even, in some cases, make uptake of it so limited as to leave the ambitions to create zero carbon housing of the person who proposed it – the then Chancellor and now PM – open to ridicule. **The Treasury must avoid its old habit of making a tax concession so tightly drawn as to reduce the loss of revenue to the minimum.**

ACE considers that the following parts of the draft regulations should be re-examined:

1. Third condition: energy needed to power appliances – too high to be viable?

The method in the consultation document proposed to measure appliance demand is to use an Application Quota table, which produces an estimate based on floor area. As these figures are based on current commonplace appliances there is no concession to low-energy appliances. The implications of "setting in stone" the level of electricity apparently consumed by a home is that a greater amount of electricity will be required from renewable sources either on site or from nearby than may be needed by the zero-carbon home that contains low-energy appliances.

This condition may make the zero-carbon home impossible. The electricity required from renewable sources on-site in a zero-carbon home is probably the most controversial aspect of the zero-carbon home concept – indeed its weak spot. Many technical experts consider that in a typical urban site where roof space is limited for PV panels, and micro wind turbines are ineffective because of close proximity of buildings, it is impossible to for microgeneration to produce enough electricity over the year to power a typical range of

¹ ACE considers that the 60% target 2050 is inadequate. The target should reflect current scientific opinion as to the cuts necessary to keep the UK within its "fair share" of global emissions compatible with keeping temperature rises below 2 degrees Celsius. This means it should be at least an 80% reduction in CO2 emissions. This would set an exceptionally vigorous example to the rest of the world.

commonplace appliances. Therefore this part of the regulations needs to be re-examined to see if it can be modified to keep pace with technology improvements in energy saving appliances.

There have also been concerns put to us by other organisations that the regulations divert from the Code for Sustainable Homes in the way energy consumption is estimated. If this is the case, ACE would like to know the reasoning behind this, as clearly it makes no sense for the Government to be issuing two sets of standards for zero-carbon homes.

2. First condition: heat loss – too strict to be viable?

A calculation provided by an ACE member, Pilkington Group Limited Company, indicates that the emission rate of 0.8 is so tight that it may be technically impossible for anything but the smallest of single properties or blocks of flats. In an urban area, this implies a small roof area per housing unit and if this is the case, it would make it even harder to install a solar PV panel large enough to satisfy the electricity supply conditions mentioned in our point 1. It could be argued that biomass CHP could be used. However, like gas micro-CHP, the technology is in its infancy and few tried and trusted units may be on the market before the concession ends in 2012. So again, this condition may make the zero-carbon home virtually impossible.

3. Are EPC assessors qualified to verify a property as “zero-carbon” under the regulations?

It is the view of FAREO, an agency involved in training EPC assessors, that people trained to the standard required to be an EPC assessor are not qualified by this alone to the technical standard required by the Treasury regulations as published. If this is the case then this issue must be re-examined by the Treasury in light of further advice.

4. How “independent” will “independent assessors” be?

It is important that the assessors used in the scheme are seen as competent, independent of the client (the builder) and that their work is open to audit. The Government does not want the situation to emerge as has with Building Control approval of new housing, where the relationship between an inspector – either commercial or council – and a builder is inherently corrupt because the inspector’s organisation is reliant on individual developers for income (a developer has free choice of inspectors). This has produced a widespread disincentive to enforce expensive aspects of the Building Regulations – such as Part L - in favour of concentrating on basic safety aspects of the sign-off. The work of Building Control inspectors is not audited by an external independent body and so there is little hazard of public detection, apart from the rare media investigation.

This leaves the checking of controversial zero-carbon developments open to trial by media. The discovery of a bogus zero-carbon development widely reported in the press could make the person who proposed the idea – the then Chancellor and now PM – open to ridicule and would significantly undermine the political value of the concession.

5. Why declare that the relief ends in 2012?

It is not clear to ACE why the Government has declared that the relief ends in 2012. ACE considers that ending the relief on that date will leave a gap until zero carbon housing is required as promised by the Government’s proposed Building Regulation changes after 2016. Low and zero carbon building is still in its infancy in the UK, and any concession that reduces the cost of producing for sale zero carbon housing – which will have to compete with new housing built to the then Building Regulations - should continue until regulation removes the need for it.

ACE
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