



THE HOME BUILDERS FEDERATION

Sustainability Committee
National Assembly for Wales
Assembly Parliamentary Service
Assembly Offices
Cardiff Bay
CF99 1NA

Date – 4th October 2007

Dear Mr Bates,

RE: Welsh Assembly Government - Sustainability Committee – Carbon Reduction in Wales Consultation – Household Emissions

1. Introduction

- 1.1 Thank you for seeking the Home Builders Federation's views on the above consultation. The HBF has a number of comments to make which are set out below. These relate both to the specific questions raised by the Committee and to more general issues that we believe are relevant to the achievement of effective carbon emissions reductions in Wales.
- 1.2 The HBF is the principal trade federation for private sector homebuilders throughout England and Wales and therefore our comments are related to the implications of carbon reduction on the provision of new homes in Wales.

Questions Specific to household emissions of carbon dioxide

3 Question 3.

- 3.1 Wales faces many challenges when it comes to reducing carbon dioxide emissions. The HBF recognises these challenges and stands ready to work with the government in trying to achieve a reduction in carbon emissions for new homes.
- 3.2 The Welsh Assembly Government's agenda represents a particular challenge in terms of the provision of new homes throughout Wales. Alongside the objective of increasing the supply of new homes and thereby tackling problems of housing affordability, the Assembly Government has stated its desire to see all new buildings achieve a "zero carbon" specification from the year 2011. These objectives bring several challenges with them, many of which require action by other industries and public bodies and certainly cannot be delivered by the development industry alone. In this context, the HBF has met with Welsh Assembly Government Ministers to express our desire to work in partnership with the Government, in order to identify and tackle the challenges we might face in working towards the target. The Government has responded positively to this offer and we will look forward to forging relationships with Ministers and Officials in order to enable Wales to make a substantial contribution towards reducing carbon emissions in the UK.
- 3.3 Key issues the HBF has identified, which must be overcome in order to establish a successful programme of carbon reduction in new homes throughout Wales are outlined below.
- 3.4 First, a definition of "zero carbon" has not yet been established in Wales. Clarity about the definition is important to enable developers and other parties to work successfully towards the objectives adopted

in Wales. In England, the Code For Sustainable Homes is being used as a benchmark to identify levels of carbon reduction, before arriving at a level described as “zero carbon”. Within the Code, a 100% drop in carbon emissions is achieved when level 5 is reached. However, this does not take into account items such as white goods and other appliances with SAP ratings. Level 6 of the code represents a 100% drop in carbon emissions, which includes those appliances that require a SAP rating.

- 3.5 In Wales we have no equivalent system to identify what “zero carbon” building entails and the HBF believes that in order to achieve this goal, a suitable definition must first be established. It would greatly assist developers, manufacturers and suppliers in identifying effective solutions cost-effectively if the same definition of a zero carbon performance standard for new homes could be adopted in Wales and England.
- 3.6 If we use the different levels within the Code For Sustainable Homes as a benchmark of what is meant by zero carbon, we can highlight some of the challenges inherent in achieving zero carbon building. The HBF has worked tirelessly with the UK Government in order to identify potential barriers and possible solutions that we will need to consider along the path to achieving zero carbon building in England by 2016.
- 3.7 One of the HBF’s major concerns lies with the availability, reliability and cost effectiveness of suitable low and zero carbon sources of energy supply that will be required in order to meet the performance standard.
- 3.8 At present regulatory and market rules for the energy sector do not support or incentivise sufficient investment from mainstream energy providers and others in the provision of energy from renewable sources. This is a significant issue because in order to reach levels described within the Code For Sustainable Homes that represent zero

carbon development, energy production from on-site renewable sources will often not be sufficient or necessarily appropriate.

- 3.9 The HBF is working closely with the energy industry via the Task Force set up with the UK Government. The development of new forms of partnership working between homebuilders and energy suppliers will be critical to delivery of the zero carbon objective. Amongst other things, we will be seeking to clarify the regulatory and other issues that need to be resolved if we are to be successful in this regard.
- 3.10 The Federation also believes there are currently significant unanswered questions about the reliability, durability and functionality of much of the renewable energy technology available on the market at present. For instance, small wind turbines for individual homes are often largely ineffective in producing enough energy to be technically or cost effective. The location of developments can in many instances render them inoperable, especially in relation to town and city developments that have little exposure to wind. Photovoltaic Cells can be effective if used in the proper manner, however, in order to create an effective system with significant impact the cost can be prohibitive.
- 3.11 The HBF believes that as the potential of many of these technologies remains insufficiently tested, a priority is to ensure robust testing and proving of the best options with a view to their accreditation in relation to relevant performance criteria and standards. It is essential to allow sufficient time to progress and improve these technologies, so that they become a real and effective substitution for current energy generation.
- 3.12 In the context of renewable technologies and any changes in the construction of new homes that may also be necessary, it is essential to maintain consumer and public confidence. Homebuilders are selling homes to a mass retail market that depends ultimately on their customers being happy with the product. If customers have concerns about design issues or the performance of the new technologies

involved they could easily lose confidence in new homes and this would in turn undermine achievement of the Assembly Government's objectives.

3.13 The HBF re-iterates its willingness to work in partnership with the Government and the Assembly in order to try to foster greater consumer confidence in renewable energy technologies and zero carbon home solutions. We also envisage that the partnership approach the WAG has agreed to establish should be used to identify any problems and issues that we are likely to face on the route to zero carbon building. Ultimately any targets or policy approaches should be informed by this work, in order to ensure that the aims and objectives established are workable and realistic and do not undermine the long run benefits we are all seeking to achieve.

3.14 We believe that the challenges faced by everyone in Wales in achieving zero carbon development are best tackled on a wider partnership basis. The Government has already agreed to work with the HBF in trying to identify and overcome the problems and hurdles we will inevitably face in trying to achieve zero carbon development. The Federation welcomes this positive step by the Government and would now urge Ministers and Officials to use the partnership as a sounding board to inform decisions on policy approaches and targets for zero carbon development. We also need, however, to ensure that in Wales we involve the supply chain industries, energy providers and others in this process as they all have a part to play. Overall the HBF believes that fostering such a partnership approach to reducing carbon emissions throughout Wales will give us the best chance of success and will provide us with the impetus to achieving the goal of zero carbon building.

4. Question 6

- 4.1 The HBF has signed up to working with the UK Government on trying to achieve the zero carbon building target of 2016. The target is linked to the Code For Sustainable Homes and the government has set various targets that have to be met along the path to 2016.
- 4.2 The HBF has established a “2016 Taskforce” in partnership with the UK Government and other key companies and interested bodies. Its remit is to identify the obstacles and issues that we might face in trying to achieve the targets set out within the Code For Sustainable Homes. The Taskforce has undertaken a considerable amount of work to date and is steadfast in its commitment to achieving the UK Governments ambitious targets for carbon reduction.
- 4.3 The HBF believes that the work already undertaken by the HBF as part of the “2016 Taskforce” has the potential to be an invaluable resource to Wales. By drawing on this work Wales can help promote and establish a joint effort to tackling climate change that would be of mutual benefit to the UK as a whole. The Code For Sustainable Homes is an example of a successful and workable solution that could be adopted in Wales under current powers. It would provide developers and other key stakeholders with clarity and much needed direction and would provide the Welsh Assembly Government with a comprehensible route to achieving the goal of zero carbon building.

5. Other issues

- 5.1 The companies represented by HBF primarily build new homes and are not usually involved directly in work to improve the condition and performance of the existing housing stock. In the context of current action to tackle climate change, however, we do see a number of ways in which the work of homebuilders may also bring benefits in tackling the energy and carbon efficiency of the existing stock. We seek to explain these potential synergies in the remainder of this note.

Detailed comments

The significance of tackling the existing stock

- 5.2 Carbon emissions from housing account for just over a quarter of UK emissions. Within this figure it is undoubtedly the case that the energy efficiency of the existing housing stock will be a far more important factor overall in determining Wales's ability to reduce carbon emissions than that of newly built homes.
- 5.3 Even with the increase in housing supply required to tackle current problems of housing affordability in Wales, existing homes are still likely to constitute around two thirds of the total housing stock by 2050. The energy efficiency of many of these existing homes is considerably less than that of homes being built to the current Part L 2006 building regulations and will compare less favourably still as we move towards the objective of building to a zero carbon standard for new homes.
- 5.4 As a result of the 2006 Part L regulations, homes being built today are 40% more energy efficient than those built under building regulations current 5 years' ago. Taking a longer-term view, Victorian houses are up to six times less energy efficient than those of today.

The approach on new build and its relevance to the existing stock

- 5.5 In addition to the work of the 2016 Taskforce, a number of homebuilders are already undertaking projects to explore how to achieve higher standards of carbon efficiency. In addition, in England there will be structured opportunities for demonstration projects via initiatives such as English Partnerships' Carbon Challenge and the Government's plans for a number of new eco-towns. HBF and its members are actively participating in all these discussions.

- 5.6 Against this background, the HBF believes that arising from pursuit of the zero carbon objective in Wales there could be a number of opportunities or outcomes that might also be helpful in seeking improvements to the energy efficiency of the existing housing stock.
- 5.7 The most obvious such opportunity is likely to result from the further innovations and proving of technologies inherent in the zero carbon homes objective. While it is common ground between HBF and many other bodies that the first priority is to make further improvements to the fabric efficiency of new homes, we do not expect to be able to achieve the zero carbon standard purely through this means. There will be residual heating and power needs that will need to be met by appropriate forms of low and zero carbon generation.
- 5.8 Whether such needs could best be met in particular cases through micro-generation, on site facilities, community energy supplies or via additional low and zero generation capacity accessible through the grid is still a matter of some uncertainty. As stated above, many of the technologies that might be used are not yet adequately proven in terms of their performance outputs and durability in given contexts.
- 5.9 An important outcome - if zero carbon standards are to be met successfully – will therefore be to establish clarity about the capabilities of particular technologies and low and zero carbon energy supply facilities and scenarios. This knowledge should in turn be relevant and helpful to efforts to improve the energy efficiency of the existing housing stock, which is equally likely to require low carbon solutions for residual energy requirements over and above what can be achieved through improvements to fabric efficiency.
- 5.10 A more profound potential synergy should also be actively considered. Since the average new-build development is quite small – perhaps 30 or 40 homes – we think that technically effective and commercially viable solutions for providing necessary residual energy supply for zero

carbon homes will often need to be non-site specific. If so, that consideration immediately opens up the question of how a sufficient critical mass of consumers can be assembled to underpin investment in appropriate new facilities.

- 5.11 One way in which this might happen would be for a facility to serve both existing and new homes in an area. Efficiency – including via balancing the load of demand as evenly as possible through the day – could prospectively be further increased by also including non-domestic forms of demand such as local commercial, retail, office and public amenities.
- 5.12 We are currently discussing such possibilities in England with Government, energy companies and others via the 2016 Taskforce process and would wish to explore these issues in Wales also. Discussions in England are currently at a very early stage so we cannot yet set down firm conclusions on the scale of opportunity that might realistically be available. We do believe, however, that where feasible such an approach could yield significant benefits for all parties.
- 5.13 We should add that in order to explore such ideas it will also be necessary to consider how the regulatory regime affecting the generation, transportation, trading, balancing and sale of energy affects the ease and viability of what we might call new forms of community-wide energy generation and supply. These issues are already being looked at in the context of the Government's objectives for promoting renewable energy supply, but the need for a reduced carbon footprint for new and existing homes is introducing an important new dimension to such discussions. Overall we do not consider that existing rules are yet sufficient to encourage the necessary investment flows.
- 5.14 A further link to other policy objectives may lie in the way in which the Energy Efficiency Commitment evolves in future. In particular, HBF believes it might be helpful and worthwhile to look into how the future

CERT scheme could assist the development of new low and zero carbon community-wide energy supply facilities of the type outlined above. An appropriate element of financial contribution linked to such new facilities through a post-2011 CERT scheme could in principle make them easier and more viable to bring forward and would seem to be consistent with wider Government objectives in this field.

5.15 We additionally welcome the introduction of Energy Performance Certificates. We consider these will help to encourage greater public interest in energy efficient homes although it is not clear at present that they will rapidly lead to a decisive change in perceptions, given the very pressing concerns that exist about housing availability and affordability.

5.16 In the foreseeable future the ambition entailed in the objective of achieving a zero carbon standard for new homes is likely to transcend the question of annual carbon reduction targets raised by the Committee. We would, however, wish to consider the possible implications of such targets for supply industries used by homebuilders.

Thank you for consulting HBF at this stage in the process and I look forward to working with you in the future.

Yours sincerely,



Richard Price

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