



Response to the Consultation by the Department of Communities & Local Government on the Definition of Zero Carbon Homes and Non-Domestic Buildings

The UK Business Council for Sustainable Energy brings together the major companies¹ in the energy sector to develop an effective dialogue with Government that can help strengthen the UK's strategic agenda for sustainable energy.

The Council supports the Government's ambitions for zero carbon homes and non-domestic buildings. Council's members believe that zero carbon homes policy will potentially make an important contribution to meeting the UK's carbon budgets, the target of 80% reduction in CO₂ emissions by 2050, and the EU 2020 renewable energy target.

Key points

- We support the proposed hierarchy for tackling carbon emissions from new homes, which includes constructing houses to the highest practical levels of energy efficiency and onsite carbon mitigation where appropriate and cost effective.
- Recognising that it will not always be possible to achieve zero carbon through onsite measures, we support the appropriate inclusion of offsite generation, and consequently a choice of allowable solutions.
- We do not believe the requirement for "*direct physical connection*" between offsite generation and housing developments is practical, particularly as it could lead to higher overall costs for consumers.
- There is a significant opportunity for local authorities to identify opportunities in the existing built environment for the achievement of the zero carbon goal.
- Developing the skills that will be needed, training assessors and ensuring systems are in place to monitor progress is vital.
- We would urge the creation of a new Code for Sustainable Buildings which sets out a clear framework for improving non-domestic buildings and the existing building stock.
- Zero carbon policy needs to be effectively coordinated and avoid overlap with related Government policies.

¹ Members of the Council include Centrica, EDF Energy, E.ON UK, National Grid, RWE npower, Scottish and Southern Energy, and Scottish Power.

Definition of Zero Carbon Homes

The Council supports the Government in its ambition for zero carbon homes. This policy will potentially make an important contribution to the Government's overall climate change targets. However, there is a need to ensure that zero carbon housing policy is effectively coordinated with other related Government policies such as the Renewable Energy Strategy (RES) and outcome of the Heat and Energy Saving Strategy (HES), buildings regulations and planning policy.

For example, the definition for “zero carbon” which is being consulted on by the Department of Communities and Local Government (DCLG) and for “carbon neutral” which is being consulted on by the Department of Energy and Climate Change (DECC) should be consistent. In addition, we also feel it is important for DCLG to work closely with the Department for Children, Schools and Families to ensure that zero carbon schools are developed in a coordinated way with homes and other non-domestic buildings as there is a potential for considerable synergies.

Zero carbon policy should be flexible enough to deliver the most appropriate technology solutions for particular developments in terms of performance and carbon reduction potential, cost, location and scale. The relative merits of different technologies are still the subject of active investigation and debate across the industry.

Whilst the Council recognises that delivering the Zero Carbon Homes target will be challenging, particularly in the current economic context, energy companies are committed to working with Government and the housing sector to ensure the target is, so far as is practicable, achieved.

Energy Efficiency

The Council supports the Government in its ambition to achieve the highest practical levels of energy efficiency. As well as reducing the total energy requirements for the home, requiring high standards will potentially help to drive innovation. This could have added benefits in terms of job creation and advances in technologies for retrofitting the existing housing stock.

Carbon Compliance

The Council supports the proposed hierarchy for tackling carbon emissions from “new homes”, which includes onsite carbon mitigation where appropriate and cost effective. Where this is not the case, offsite measures, including renewable and other forms of low carbon electricity should be able to contribute to the policy.

The Council believes that there should be a single, consistently applied, definition of zero carbon which is flexible enough to cover a range of development scenarios. We therefore suggest that a single level should be set for carbon compliance, rather than different targets for different types of development (e.g. green-field versus brown-field).

In principle, we believe a high level of carbon compliance should be set, however we need to ensure that this is achievable for all scales of development (e.g. individual

homes to eco-towns) and provides value for money in terms of carbon savings. It is particularly important to ensure additional costs to developers are minimised so that new homes remain economically viable.

It will be essential that incentives such as Feed in Tariffs and the proposed Renewable Heat Incentive are fairly and consistently applied across all housing tenures, types and ages. However, in doing so the Government needs to recognise that these new incentives will have an effect on consumer bills, and it would therefore need to take appropriate action through its social welfare policy to ameliorate the impact of this.

Allowable Solutions

The Council supports the range of allowable solutions offered by the Government to tackle residual emissions. For example, it makes complete sense to include local measures that contribute to the decarbonisation of the existing built environment – including retrofitting existing homes and exporting low carbon or renewable heat (or cooling).

The Council strongly supports the inclusion of offsite renewable and low carbon energy sources, but does not believe the requirement for a “*direct physical connection*” between offsite generation and housing developments is appropriate. Indeed, it is wholly inconsistent with the way the Government has designed the current energy market. It could also lead to significant duplication of networks, isolation of new developments from the opportunity to fully benefit from smart technologies and a decarbonising grid, resulting in potentially lower levels of customer service, as well as significantly increasing overall costs to consumers.

For all allowable solutions it will be important to ensure that carbon savings are measurable and that, if appropriate, additionality to existing policies can be achieved. For example, with offsite renewable energy, additionality could be demonstrated contractually through a green tariff or a carbon offset arrangement². Alternatively, the new plant concerned could remain outside of the Renewable Obligation by not claiming ROCs (Renewable Obligation Certificates) in the first instance, although this would be a higher cost option.

Planning

The Council believes that there is a significant opportunity for local authorities to take a more holistic approach to spatial planning and identifying opportunities in the existing built environment. Local authorities should be encouraged to actively promote the delivery of integrated community energy systems, such as CHP and community heating, which could serve new and existing homes as well as non-domestic properties.

² Green tariffs involve the sourcing of “certified” renewable and low carbon energy sources. Carbon offsets involve calculating emissions and purchasing equivalent credits from emission reduction projects elsewhere that meet the independently established Gold Standard for carbon credits which the UK already utilises and supports.

Delivery

In order to achieve the zero carbon homes target, there will need to be significant training and up-skilling of planners, developers, builders and assessors. There should also be specific advice and support for smaller house builders, who may find meeting the target more challenging. There will need to be stronger enforcement of building controls to ensure the zero carbon homes standard is achieved for new developments.

There will need to be careful monitoring of the energy performance of new homes, particularly to ensure allowable solutions are delivering the savings required. Smart meters will potentially have an important role in monitoring progress. They would enable accurate measurement of the balance of energy imports and exports to new homes over time. In addition, smart meters linked to information displays should potentially help householders manage their energy use more effectively.

Exploring these issues in more detail should be a key role for the 2016 Taskforce and the Zero Carbon Hub, and the Council is committed to making a full and effective contribution in both these arena.

Non-domestic buildings

The Council believes that any policy for non-domestic buildings should properly align with that of housing, should take a similar hierarchical approach and adhere to the same principles of reducing carbon emissions cost-effectively. As for zero carbon homes, the policy for non-domestic buildings should be consistent and avoid overlap with existing policy, including the EU Emission Trading Scheme (EU ETS), Climate Change Levy (CCL) and Carbon Reduction Commitment (CRC).

However, non-domestic buildings will require different solutions and approaches to that for zero carbon homes. As the consultation sets out, there are particular challenges relative to the characteristics of non-domestic buildings. For example, the use of a building will determine and drive the amount of energy it uses – measures to make buildings zero carbon may be rendered ineffective, and therefore not cost efficient if the use of a building changes overtime. Any policy on non-domestic buildings should seek an approach to zero carbon that is cost effective, flexible and proportionate to the type of building and its use.

In addition, there is an important role for Government in demonstrating leadership in this area through the progressive decarbonisation of the public estate.

Code for Sustainable Buildings

The Council supports a new Code for Sustainable Buildings which also sets out a framework for improving “*non-domestic buildings*” to provide clarity for energy companies and developers. The Code should consider the full lifecycle of a building and should ensure that sustainability is embedded in the design, development, delivery and operation of new buildings.

The Code could highlight opportunities for closer collaboration between local authorities, planners, developers and energy companies, and enable these stakeholders to consider sustainability and energy supply issues at the very start of any building design process. For example, energy companies could help local planners to design energy systems which meet the needs of both new and existing developments.

However, taking account of the different uses of non-domestic (commercial) buildings, it may be desirable to establish sector streams within a single code which treats buildings in accordance to the sector that uses them. As the Government has set different timeframes for zero carbon targets in different sectors – domestic, non-domestic, public buildings and schools – some form of distinction and levels within the code for new non-domestic could be implied.

Existing non-domestic buildings

It would be desirable for a new Code for Sustainable Buildings to be directed at both new and existing building stock. However, it would be unfair and impractical to measure existing buildings against the same code as new buildings. We therefore suggest that existing buildings are included as a subset of the code with more appropriate criteria.

Conclusion

The Council supports the Government's target for carbon emissions from all buildings to be as close to zero as possible by 2050. This will be challenging both in terms of the ambitious vision for new housing but also in terms of retrofitting existing stock with ever more costly and disruptive measures.

The Council and its members welcome the continued opportunity to work with Government to overcome barriers and achieve its climate change targets.

**UK Business Council for Sustainable Energy
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The views expressed in this paper cannot be taken to represent the views of all parts of all the companies in the UKBCSE. However, they do reflect a general consensus.