

Water UK Response to CLG Consultation

Definition of Zero Carbon Homes and Non-Domestic Buildings

March 2009

Introduction

1. Water UK is the industry association that represents regulated UK statutory water supply and wastewater companies at national and European level. We are a policy-based organisation and represent the industry's interests with Government, regulators and stakeholders in the UK and in Europe. Our core objective is sustainable water policy – actions and solutions that create lasting benefit by integrating economic, environmental and social objectives.
2. We are pleased to have the opportunity to contribute to this consultation. We welcome the consultation and support its aims.
3. Our members will provide water and wastewater services to the proposed sites. Section 37 of the Water Industry Act 1991 places a duty upon a water undertaker to develop and maintain an efficient and economical system of water supply within its area. Similarly Section 94 places a duty upon a sewerage undertaker to provide, improve and extend a system of public sewers to ensure that its area is properly drained and the contents of those sewers effectually dealt with. In doing so, it must also make provision for the transmission and treatment of trade effluent.

Key comments

4. We have not responded to each individual question in the consultation, as many are only indirectly relevant to water. Instead, we provide some generic comments which we hope are of use.
5. Our main comment is that both clean water and wastewater issues are only briefly referred to in the consultation. Around one-third of energy used in homes is used to heat water. Therefore, making homes and buildings as water efficient as possible will have a big impact on energy use and carbon emissions.
6. We believe that zero-carbon homes and non-domestic buildings represent an excellent opportunity to ensure water issues are addressed and that the crucial links between water and energy are made.

Linking water and carbon

7. Water is a heavy product and the abstraction, treatment and distribution of water and the collection and treatment of wastewater is energy

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intensive. Reducing the burden on the infrastructure to provide these services is important in terms of not just water efficiency, but also from an energy/carbon perspective.

8. In addition, around 5% of the UK's total greenhouse gas emissions are associated with heating water in the home.¹ It is therefore essential that homes and buildings include the highest possible standards of water efficiency, since this will deliver multiple benefits, including energy and carbon efficiency.
9. It is important that the broader links between holistic waste and energy management are made. There will be significant opportunities to utilise use green waste and sewage sludge to provide energy for zero-carbon homes and buildings e.g. through anaerobic digestion) and enhancing the sustainability of the developments. However, this requires planning in advance to ensure that the wastes will be available and that that the infrastructure is in place.

Water efficiency

10. Water companies have had a statutory duty to promote water efficiency since 1996. Our members undertake a range of efficiency work with domestic and other customers, including audits, trials, pilots, campaigns, education programmes, provision of information, expertise and water efficiency devices, and so on.
11. We would like to see a stronger commitment to water efficiency through:
 - a. Direct reference to water consumption aspirations in the Code for Sustainable Homes. We think all new homes should be built to a minimum Code level 3/4 (equivalent water use of 105 litres or less per head per day) and Code level 5/6 after 2016.
 - b. Regulatory requirements to support this, including amendments to Building Regulations and Water Supply Regulations.
 - c. Where possible, opportunities should be taken to achieve exemplary development in water efficiency terms in advance of the 2016 deadline.

¹ <http://www.defra.gov.uk/environment/water/strategy/index.htm>

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12. These issues are important even where homes and buildings are not in areas that have been designated as ‘water stressed’. All areas of the country face pressures from population growth, demographic changes, environmental protection legislation and climate change. And of course, saving water means saving carbon.
13. Specific measures that should be included are low volume taps, low volume showerheads, dual flush toilets, save-a-flush devices, water efficient washing machines and dishwashers. There is a wealth of information on possible measures that can be used (see <http://www.water-saving.org/site/WR25c/wr25c-home> or www.waterwise.org.uk)
14. We would encourage developers building such homes and buildings to work with utility service providers to promote and trial innovative techniques including smart metering, dual water supplies (potable/non-potable), real time home information display systems, tariffs, community rainwater harvesting and grey water re-use schemes.
15. For non-household buildings, we think that developers should do more than “demonstrate” how they have considered water efficiency and conservation in the design and maintenance of buildings. Achieving low consumption per FTE (full-time employee equivalent, based on best-practice, should be an absolute requirement for zero-carbon non-household buildings.