

Phlorum
News on the Block
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The BedZed scheme demonstrates that simple steps can improve the energy efficiency of new homes.

Sustainable living – the future is green

With an increasing awareness of the threat posed by global warming, **Dr Paul Beckett**, director of environmental consultancy Phlorum, examines the future of sustainability in the redevelopment and housing sector.

Climate change is a burning issue that has dominated the public agenda. This interest has prompted governments, businesses and consumers to take action. One of the main causes of global warming is increased burning of fossil fuels, resulting in higher levels of greenhouse gases, such as carbon dioxide. After its initial proposal in 1997, the Kyoto protocol was accepted in 2004 to tackle greenhouse gas emissions. The agreement sets different targets for the 160 countries involved, however, the UK has gone further, aiming for higher reductions than mandatory targets. To ensure aims are met, the government introduced legislation and initiatives to limit our emissions and one sector that has received particular attention, is the sustainability and energy efficiency of the nation's buildings. At the Thames Gateway Forum in 2006 Ken Livingstone announced steps towards a new housing strategy for the capital. In this strategy he emphasised the importance of building new homes that are sustainable and energy efficient. Livingstone urged Forum delegates to embrace the content of his report and join forces in creating sustainable developments that appeal to all Thames Gateway residents.

While London is leading the way in the energy efficiency push for new homes, it is by no means alone, and a number of other schemes and legislative changes

are underway to ensure the UK meets its ambitious targets.

One of the major legislative changes introduced by the Government was a requirement, brought in under the Housing Act 2004, that all homes sold from 1st June 2007 must have Home Information Packs (HIPs). HIPs are designed to improve the home-buying process, part of which will be a home condition report and Energy Performance Certificate. This will be similar to the current certificates used in the sale of white goods. The hope is that energy-efficient homes will become more attractive to buyers and encourage homeowners to make changes to their properties.

Another system that is already up and running is the Building Research Establishment's (BRE) EcoHomes assessment, which is part of the BRE Environmental Assessment Method (BREEAM). EcoHomes is a tool that can be used for new, converted or renovated homes. It is aimed at encouraging significant developments in the performance of buildings in the UK through the benefits that the improvements will make. The issues covered by the EcoHomes assessment are grouped into seven categories as follows: energy, water, pollution, materials, transport, ecology and land use, as well as health and well-being. Many of the issues are optional, ensuring EcoHomes is flexible enough to be tailored to any particular

development or market.

On 13th December 2006, the Code for Sustainable Homes, a new national standard for sustainable design and construction of new homes, was launched. This code is based on the BRE's EcoHomes assessment. By integrating elements of this voluntary code into new homes and obtaining assessments against the code, developers will be able to obtain a star rating for any new home, to demonstrate its environmental performance. It will also provide valuable information to homebuyers and offer builders a tool with which to differentiate themselves in terms of sustainability. At this stage the full technical guidance on how to comply with the code has not been published but is anticipated that it will be available in April 2007.

Developers have been reluctant to sign up to energy efficient or sustainable building schemes for new houses. However, the development of several high pro-

Phlorum is an environmental consultancy that specialises in contamination, air quality, Japanese knotweed eradication and ecological management of new developments. Phlorum also has an energy efficiency division dedicated to helping developers with the energy efficient design or refurbishment of new or converted buildings.

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file projects, such as the ground-breaking BedZed scheme, have demonstrated that simple steps can improve the energy efficiency of new homes. When combined with public interest and a growing public demand, there is an increasing pressure to provide more energy efficient and sustainable developments.

Several new developments are being forced to look at cost effective energy efficient and sustainable options. Many of these are using the EcoHomes scheme. But, there is an increasing interest in the use of small energy supplies from renew-

able sources, such as wind energy, solar power, solar water heating systems and biomass (organic matter).

Site developers are expected to provide homes and services with lower negative environmental and social impacts, which still provide value and performance for consumers. Developers who take a long-term view and anticipate changes in resource availability are in a stronger position when it comes to building sustainable homes and will prosper in our nation's environmentally conscious future ■



Wind power is the way forward for new developments.

Wind-powered properties

■ ELECSA, the Government authorised no-nonsense scheme for Part P of the Building Regulations, has formed a partnership with WM Certification to offer a complete solution for a domestic wind turbine system to help home owners comply with Building Regulations.

With increases in electricity bills and the UK having the most consistent wind in Europe, a domestic wind turbine represents a sustainable, eco-friendly option compared to energy derived from fossil fuels. For flat owners, domestic wind turbines offer the ability to take part in delivering green energy direct to their home and reduce CO₂ emissions, as well as reducing electricity bills. Home owners can apply for domestic wind turbine grants from the Energy Saving Trust and some local authorities will top this up.

With wind turbines falling under Part P, ELECSA and WM Training have developed a training course and qualification for domestic wind turbine installation that meets the industry standards set for Part P self certification. Successful candidates are awarded EL4001 - Electrical installation of domestic wind powered small scale embedded generators. The five-day course covers the electrical installation, testing and certification of the turbine and inverter and ensures that trainees can install correctly and to the required standards.

All fixed electrical installations and alteration work must be certified as complying with Part P of the Building Regula-

tions. Legally, homeowners must prove compliance, which can be demonstrated in two ways: obtain approval from the relevant Local Authority and pay for an inspection visit to have them confirm the electrical installation has approval under Part P of the Building Regulations. Have the work done by a tradesman registered with a Government-authorised Competent Person scheme such as ELECSA.

This means that when property owners install a domestic wind turbine using an ELECSA registered business who has undertaken WM Training's Wind Turbine installation course, ELECSA will notify the relevant Local Authority and issue a householder certificate that can be used as legal evidence that the wind turbine installation has been self certified as complying with the regulations and that the Local Authority has been notified. This is vital as when the time comes to selling a property, the buyer's solicitor will ask for evidence that any electrical work installed after 1 January 2005 complies with Part P of the Building Regulations. ■

For more information, visit www.elecsa.org.uk, www.wmtraining.co.uk, and the British Wind Energy Association at www.bwea.com.



GREEN VIEWS FROM THE INDUSTRY

Andreas Palikiras of County Estate Management (CEM), a leading residential managing agent, tells NOTB how it is developing a system to promote green practices and encourage energy conservation at their properties.

We have taken a green approach to residential management as an ethical obligation and because it makes good business sense, which will benefit local communities. Everyone must act to offset greenhouse gas emissions and we hope our green initiatives will raise awareness and wider industry participation.

Carbon footprint is a measure of the impact humans have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide. CEM will undertake an environmental audit and calculate our clients' carbon footprint produced at the block. We then assign the property a figure on a scale of 1-20 - where 1 means the lowest environmental impact.

We will look at energy management, purchase of electricity through green tariffs, explore areas of rainwater retention, waste recycling, heating, cooling and solar shading, for example. We will look at every aspect of energy conservation, from choice of planting, encouraging bicycle use, communal electric vehicles and renewable energy.

At the end of the assessment, CEM will make recommendations for improving the carbon footprint at the block in order to progress to number 1 rating and will then undertake the necessary improvements required to reduce the buildings' impact on the environment. Our recommendations will also include links for individual residents on Government initiatives and grants schemes available to them.