

Mill Meadow Eco Tourism Project Wins Runner Up Award at the 2009 Regen SW Green Energy Awards

Award Category - Best Housing Scheme

Location – The Assembly Rooms in Bath, 10th November 2009



Mr Chris Heayns the Managing Director of Mill Meadow Eco-Projects and Mr Michael Pitcher the Managing Director BFC Solutions Limited, with the Runners Up award in the Best Housing Category for the Mill Meadow Eco-Tourism Project, Kingston St Mary, Taunton, Somerset.

www.millfieldecoprojects.co.uk

www.bfcsolutions.co.uk

<http://www.bfcsolutions.co.uk/millmeadow.htm>

www.regensw.co.uk

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Project Notes

Background, The Mill Meadow project aspires to be a Carbon Neutral development, due to the deployment of state of the art ground coupled solo heat pump technology. Heat pumps are used to provide domestic hot water, wet radiators and under floor heating in combination with a carbon free green energy tariff from a leading utility. Heat Pumps operate on a co-efficient of performance rating typically $3 > 1$, ie. For every 1 unit of imported carbon free electricity, they provide typically 3-4 units of equivalent heat energy stored in the ground. Each home can also deploy a carbon neutral biomass wood burner.

The Mill Meadow Project has been assessed under the BRE Eco Homes certification scheme; with the award of an “Excellent” rating.

The project combines heat pump technology, with a very high level of wall/Roof thermal insulation, triple glazed windows, of low energy lighting and “A” graded energy efficient appliances. The combination should result in the annual energy consumption being significantly below a typical UK property. Options are available for property owners to specify solar photovoltaic electricity (PV), solar thermal (hot water) or living green roofs.

Based on a floor area of 137m² and 3 person occupancy, a typical UK home consumes ~ 17,000 kWhrs per annum; the Mill Meadow log house is estimated to use 5,830 kWhrs per annum, a reduction of 65% depending on occupancy levels. Electric energy for the project will be supplied from a carbon free electric tariff; in effect the carbon burden is reduced to neutral from some 7.3 tonnes per annum based on the Defra emission factor of 0.43kgCO₂/kWh, as a result 18 homes have the potential to save some 131 tonnes of CO₂ each year.

The innovative Mill Meadow project is an exemplar Carbon Neutral sustainable resource efficient development, offering high quality tourism recognised by Green Tourism, Visit England 5*’s, and Eco Homes.

Mill Meadow offer’s a high quality experience unmatched by the competition, this is underpinned by the 4* exemplar BRE Eco homes status; to our knowledge no other provider has reached this level of accredited excellence. The award follows a comprehensive review of broad environmental concerns which impact climate change, resource efficiency and wildlife; these are balanced against the need for a high quality safe and healthy internal environment. Areas assessed include, energy, water, pollution, materials, transport, ecology and land use, health and well being.

Mill Meadow has potential to be replicated throughout the South West, if not the UK and beyond, as a benchmark of sustainable low carbon development in the quality tourism/residential sector. The project has taken account of local environmental, planning, economic and social issues, and would be appear to be the first regional development of its type that is carbon neutral.

The project resulted in new business opportunities for Millfield Eco-projects, in tourism, eco-projects and construction. Since launch the project has enjoyed high occupancy levels.

Whilst the cabin structure and ground source heat pump were sourced direct from Finland and an Oxford based company respectively the remaining elements of the construction were completed with South West companies and suppliers and the existing staff that have remained with the developer after the closure of the horticultural business. In percentage terms 60% of the value and 80% of the materials and labour have been sourced in the South West.

In addition the Mill Meadow “eco-homes” are made from imported Finnish timber meeting the strict requirements of the Finnish Forest Certification Scheme for quality and sustainability, www.fcs-finland.org. To maximise water conservation each property is installed with a rain water harvesting system

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The project was driven initially on commercial criteria as part of a decision to diversify a horticultural based landscaping business with extensive greenhouse facilities to a green sustainable tourism based enterprise following increased local competition from supermarkets, DIY stores, and garden centres.. The project supports high quality inward tourism, providing a boost for the local and regional economy.

The Environmental Challenge, The site is located on the edge of a popular and picturesque village adjacent to the Quantock Hills, a designated Area of Outstanding Natural Beauty, with an abundance of natural energy resources and flora and fauna in the area. The developers had to be sensitive to the location, in respect of the existing water storage lake from the nursery days and also the presence of badgers in the neighbouring spinney, maintaining bio-diversity was a priority.

All properties have rain water re-cycling systems built in as standard for grey water conservation, re-cycled water is used for toilets, clothe washing and garden uses. The developer plans to hold a series of open days to showcase a sustainable low carbon project in action that is sensitive and complimentary to the local environment.

The private sector Mill Meadow project has the potential to be replicated throughout the South West region, if not the UK and beyond, as a benchmark of sustainable low carbon development in the high quality tourism/residential sector. The project has taken full account of local environmental, planning, economic and social issues, and would be appear to be the first regional development of its type that aspires to be carbon neutral.

The state of the art project has seamless alignment with local, regional and national policy in the sustainable green energy building related sector, and anticipates the pending requirements of the EU'S EPBD European Buildings Performance Directive, for high performance, low carbon buildings.

The project has engaged with the Somerset College of Art and Technology in Taunton, to extend the practical and vocational value of the development and align with the new Genesis centre for sustainable building development.

The developer has used the project for a number of open days, including CPD events with the local chamber of commerce.

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BFC Solutions is an international associate consultancy with high level experience in directing, managing and advising low carbon, high value business development strategy that offers CEO's, directors, private equity entrepreneurs, VC's and public sector executives the opportunity to convert today's green revolution into competitive value creation and sustainable business models, a sustainable enterprise is a profitable enterprise

Michael Pitcher is BFC Solutions Managing Director. Previously he was Director of European Corporate Accounts, and UK General Manager of BP Solar and a recognized PV industry expert.

Michael has over 28 years of specialist experience and expertise as a pioneer and ambassador in the renewable energy industry, developing and marketing innovative low carbon state of the art solutions in over 100 countries worldwide; BFC can show organisations how the latest low and zero carbon technologies can transform the way you work, reduce your carbon footprint and improve bottom line performance.

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