

Case Study: Drum Housing Association Ltd

Company Background

Drum Housing Association is a large-scale voluntary transfer charitable housing association, with 130 employees and approximately 4,400 properties, covering the East Hampshire, Chichester and Portsmouth areas. Their application to the Hampshire and Isle of Wight Sustainable Business Environmental Innovation and Technology Award focuses on their showcase project "The Evergreens". This Drum Housing Association development in Whitehill, Hampshire and uses an innovative system, "Sunergy" to heat homes with renewable energy. The project was developed in partnership with Sunergy Ltd and Austins (Building Contractor).

"Drums close working relationship with their contractors and partners demonstrates clearly that change is possible if communication is clear and all are willing to work as a team to achieve the objective."

Assessor

Summary of Key Achievements

- Low environmental impact housing 
- Local & sustainable procurement  
- CO2 emission reduction 
- Measure to encourage residents to recycle and save water 
- Showcase development of housing with reduced environmental impacts in construction and use-phases, which can be replicated by other housing associations 

KEY



Leadership & Management



Economic Achievements



Social Achievements



Environmental Achievements

Environmental Innovation and Technology

Drum Housing Association's redevelopment of a disused brown field site in East Hampshire is an innovative step towards sustainable housing provision in Hampshire. The development, which included three new family homes, has been designed and built as an example of good environmental practice.

The key innovative element is that the houses in the Evergreen development have had their entire roof covered with a solar thermal heating system developed by Sunergy Ltd., which provides heating and hot water to the new homes. Unlike traditional solar panels the Sunergy system not only collects heat from direct solar radiation, but they also collect heat from the ambient air temperature, enabling the system to be used both day and night and throughout the year.

Environmental Achievements

The use of Sunergy in the Evergreens housing project has resulted in a number of environmental benefits mainly focused around the construction of the buildings and the use of the solar thermal heating in the homes.

In relation to the construction of the houses, all procurement is from sustainable sources where possible, windows and doors were made of wood which was from FSC approved sources, avoiding the use of plastic and UPVC. The Sunergy tile planks are made from recycled aluminium, reducing the need for roof tile aggregate and can be recycled at end of their life. All units are also made offsite, maximising material use and minimising waste on site

The houses, once occupied, will have:

- Up to 75% CO2 reductions which equates to 1 tonne per household as opposed to 3 tonnes with condensing boilers
- Low NOx emissions
- High Coefficient performance, 1 Kw in = 3 to 5.5 Kw of useful heat out
- Domestic space heating and hot water needs are met
- Potential for cooling as well as space heating, which will reduce the need for air conditioning in summer.

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Occupants will be encouraged to recycle through the local council kerbside collection schemes and each property has been provided with compost bins and water butts to enable a more sustainable lifestyle. To encourage biodiversity bat and bird boxes have been erected in trees near the houses and gardens planted with shrubs and flowers rather than just grass.

In managing the impact of their own operations, Drum Housing Association has an energy efficiency programme within their office and an internal waste minimisation and recycling system. They are also looking at setting up water butts with solar powered pumps to enable plant watering around the car park.

Social Achievements

The Evergreens project is designed to provide high quality and economically affordable housing to the local community. During the construction and on completion there was a programme of community and stakeholder involvement. This involved regular consultation with the local community to obtain their views on the development and site visits for local residents and councillors to help them understand the development and its innovation.



The 'Evergreen Development' in Whitehill, Hants

Continuous monitoring and communication with the residents of Evergreen has ensured, in the short-term, that any minor teething problems have been solved quickly, and, in the longer-term, enables all successes to be quantified and reported.

In building the houses, local contractors and expertise were used wherever possible and through the innovative nature of the project, new local skills and expertise were developed.

Economic Achievements

Sunergy Ltd. is a Hampshire and Isle of Wight based company and this project represents the first use of this system in the UK, supporting local innovation that can be replicated nationally. All partners, products and workforce sourced as locally as possible, with all local contractors for construction and maintenance providing local employment.

The project provides affordable and sustainable housing that is low cost to run.

The homes, now occupied, have whole-life cost benefits and low maintenance costs. In terms of running costs, although most space heating and hot water is from the house's own systems, additional electricity would be sourced from a Green tariff.

Leadership and Management

In fulfilling one of the project's aims of supporting local innovation which can be replicated nationwide, knowledge that has been gained from this project has been widely shared with other housing associations and local authorities, clearly contributing to sustainable developments elsewhere. There has been extensive PR and publicity surrounding the project, with over 200 attendees at the launch event.

Drum has its own internal environmental management system and considers CSR principles for all their projects. All staff are involved in the process and its evolution. Drums' project management demonstrated the ability to manage all stakeholder expectations whilst implementing novel and innovative technologies and systems. Real effort was made to source as much as possible locally and sustainably. Extra elements were included such as rain butts, compost bins and bird/bat boxes to enhance the ethos of low environmental impact. Two new executive directors.

Sustainability Achievements

The Drum Housing Association project at The Evergreens, represents the first use of Sunergy Ltd's solar thermal heating system for a housing application and delivers heating and hot water requirements in the home. The project is a living demonstration that buildings with reduced environmental impact during both construction and their lifetimes are economically-viable for housing associations. The houses have received very high residents satisfaction, proving that renewable energy can provide an aesthetically pleasing, comfortable and secure home. This was helped by the interlocking tile planks being finished with a coating to provide a similar appearance slate or ceramic tiles.

Environmental Innovation & Technology Category

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