



solarcentury

Case study

Barratt Homes



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Barratt Homes, Buckshaw Village, Chorley

Barratt Homes, one of the UK’s biggest house builders, is the latest large developer to adopt solarcentury’s unique solar C21e tiles. Just over one third of the 390 acre Buckshaw Village in Lancashire will be developed for housing, many with small-scale renewable technologies. The former Ministry of Defence property is Barratt’s largest site in the north west. It will be used to assess consumer attitude towards eco-buildings, and the University of Manchester will monitor performance of the technologies.

The development incorporates a number of energy saving systems including 3 installations of solarcentury’s unique and award winning C21e solar electric (photovoltaic) tiles. Barratt homes are one of many developers choosing to install these innovative energy generating roof tiles into domestic residences in the UK, and the successful model can be readily applied to any home built by Barratt homes. Other eco features include solar thermal collectors, geothermal technology, wind turbines, micro combined heat and power, rainwater harvesting and double-glazed timber-framed windows.

A sales executive from Barratt homes said: *“C21e has attracted a huge amount of interest at our Eco home in Buckshaw Village. New home buyers are pleased with the aesthetics and particularly impressed that solar tiles can save them money.”*

Chief Executive David Pretty says: *“We’re doing this not just because it makes commercial sense, but because we believe it makes sense for the future. It will help to shape the homes we’ll build for the future.”*

The solar tiles will enable residents to make significant savings on their energy bills, whilst at the same time creating a sustainable home by reducing carbon emissions. The 20 solar electric tiles protect homebuyers against rises in energy prices by generating 800 kilowatt hours (kWh) or units of electricity every year. The tiles will save 454 kg of CO₂ each year, the equivalent of over one persons annual contribution to reaching the UK’s Kyoto CO₂ reduction

target of 12.5% by 2010. Each installation comes with a wireless personal display to enable performance monitoring. Unlike conventional photovoltaic technology, C21e solar tiles integrate into the buildings' fabric by replacing standard concrete tiles, sitting flush with the rest of the roof. Using a dark SunPower PV laminate, the solar tiles cover almost eight square metres of roof space without compromising the building design; blending superbly with the grey concrete tiles. The innovative roof was chosen as a silent, durable solution with no moving parts.

As it becomes mandatory for home owners to publicise their homes energy consumption as part of the Governments new 'Home Information Packs', the demand for houses with lower energy bills is sure to rise.

Yvette Cooper, the Minister for planning, said in June 2006: "Our long term ambition should be zero carbon development. [The Development Industry] should start planning for new investment and innovation to meet our goals."

London Mayor Ken Livingstone recently announced plans to make it a statutory obligation for all big housing developments to incorporate enough onsite renewables to provide 20 per cent of residents' energy needs. 17 local boroughs already enforce a 10 per cent reduction of CO₂ emissions through the use of onsite renewables on larger scale developments, and a further 70 are set to follow.

Barratt Homes are among an increasing number of developers now installing this innovative technology into domestic residences in the UK. St James, Gleasons, Fairview and other prestige developers also installing solarcentury solar tiles.



Date commissioned	2006.27.04
Technology	Solar PV
Installation Type	Pitched roof
System size (kWp)	3.12 (3 systems)
Forecast electricity generation / year (kWh)	2490
Panel area (m²)	24.3
Building integrated	Yes
CO₂ saving to date (kg)	833.25
Type of project	Commercial



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