



solarcentury

St James Homes 'envirohome'

The St James envirohome, Kennet Island, Reading showcases an exciting new photovoltaic housing development. Opened to the public in July 2006

, The envirohome incorporates a number of energy saving systems including Solarcentury's unique Complete Solar Roof, with the award-winning C21e solar electric and C21t solar thermal tiles. St James was the first developer to install these innovative energy-generating roof tiles into a domestic residence in the UK, and the model can now be readily applied to any home built by the St James Group.



The Complete Solar Roof will enable residents to make significant savings on their energy bills, whilst at the same time creating a sustainable home by reducing carbon emissions. 20 solar electric tiles on a south-facing roof protect homebuyers against rises in energy prices by generating 830 kilowatt hours (kWh) or units of electricity every year. The tiles will save 471 kg of CO₂ each year, the equivalent of over one person's contribution each year to reaching the UK's Kyoto CO₂ reduction target of 12.5% by 2010.



Unlike conventional photovoltaic technology, C21e solar tiles integrate into the building's 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.

“Our envirohome creates a blueprint for educating and inspiring future buyers to choose renewable energy solutions for their homes,” explains Gerry McCormack, Managing Director, St James, Thames Valley Regio.

Since the opening of the St James envirohome, hundreds of visitors have explored the showhouse. The envirohome features a number of environmentally-conscious products and systems to challenge potential homebuyers to actively support the campaign to reduce climate change.

In order to gather valuable feedback on consumer interest in renewable energy solutions, St James polled a sample of one hundred of the visitors.

“Our research has shown that more people would like to customise their St James home with Solar Hot Water and Photovoltaic cells more than any other environmental or energy saving feature” says Gerry McCormack.

Over half the respondents confirmed they would be willing to pay between £1,000 – £3,000 to have the Solar Hot Water tiles installed on a new home, with solar electric tiles being the second most popular choice. Energy saving features came next on the list, closely followed by grey water recycling. Wind turbine and powerpipe heat exchangers proved to be less popular options.

When given the option to upgrade their new home to include all the energy saving features, over 25% respondents confirmed they would be prepared to pay between £10,000 - £15,000, to do so.

Mr McCormack added:

“This survey is very encouraging. It is great to see such a positive response from the public. We created the envirohome as a test bed to get a feel for what energy saving solutions people would be keen to see incorporated into future homes. So this feedback will be invaluable to us.”

“I was also delighted to discover that over 81% of visitors confirmed that the envirohome was effective as an educational tool and it has taught them how to conserve energy and help reduce carbon emissions. Raising awareness and educating consumers are two of the key objectives for our envirohome,” Mr McCormack continued.

As it becomes mandatory for home owners to publicise their homes' energy consumption as part of the Government's 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."

St James are among an increasing number of developers now installing the popular Complete Solar Roof into domestic residences in the UK. Barratt, Gleasons, Fairview and other prestige developers also installing **Solarcentury** solar tiles.

Date commissioned	2006.03.20
Technology	Solar Thermal
	Solar PV
Installation Type	Pitched roof
System size (kWp)	1
Forecast electricity generation / year (kWh)	642
Panel area (m2)	7.8
Building integrated	Yes
CO2 saving / year (kg)	365
Type of project	Commercial