

## Case Studies Carbon-neutral cottage in Suffolk



With gas, electricity and water prices rising, renewable energy is becoming less the domain of eco-conscious consumers and more relevant for average home owners. New builds & home renovations offer the greatest opportunity to integrate energy efficient technologies, such as solar panels and rain collection; relative costs are low when earth moving equipment and trade people already on site to manage installation.

They estimate the 120 sq.m property could cost as little as £340 a year for heating, hot water and lighting. Water is another resource homebuilders should look at. Collecting and storing rainwater for use in gardens, toilets and washing machines can reduce water usage by 50%, in line with Government targets to reduce the non-essential use of drinking water. The cost of the 4800 litre rainwater harvesting system (£1800) takes as little as 5 - 10 years to repay itself... in this case the water bill of £600 a year will be halved to £300, making an amortisation period of 6 years. Then there will be water price increases which will further reduce this period. So these cost savings are really relevant for those with young families, and eco products offer environmental benefits for families for generations. The rain tank

also provides water for the garden when it has not rained for a few weeks or when there's a hosepipe ban.

- 1. The Code for Sustainable Homes (introduced in April 2007) set a target of reducing drinking water consumption per person per day from the current average of 150 litres to an optimum 80 litres. Rainwater harvesting now enables any home to achieve this target, at an affordable price. Full size tanks complete with pump and filter start at £1,700 against about three times that figure two years ago.
- 2. In the UK each of us uses 155 litres a day on average... that's 56,575 litres in a year. In the same period a small house can collect 100,000 litres off the roof in a year, and a detached 3-4 bedroom house can collect 250,000 litres a year or more.
- 3. Across the UK we consume every year 2,987 million cubic metres of costly treated mains water. Each year one hundred times as much water falls in the UK and it's free of charge.

## RainWater Harvesting