

All mod, no (air) cons

Smart house design can save you energy this summer, writes **Catherine Nikas-Boulos**. Photos **Justin Lloyd**.



Features such as louvres, fans and thickened glass doors help regulate indoor temperatures



Matthew Earl

SAFE AND SOUND

Passive solar heating

This is one of the least expensive ways to heat a house, requiring the northerly orientation of daytime living areas and insulation and draught sealing.

Lighting

Incandescent lamps are the least energy-efficient type of lighting. Fluorescent lamps use one quarter of the energy to provide the same light level.

White goods

White goods account for a substantial portion of household energy consumption and greenhouse gas emissions. Look out for the energy rating stars on appliances – those with a higher star generate fewer greenhouse emissions.

Shading

Shading of outdoor spaces will reduce summer temperatures. Unprotected glass is one of the greatest sources of unwanted heat gain in the home.

■ **More information** greenhouse.gov.au



Scorching summer temperatures can be reduced with shading

Applying passive design principles to moderate the temperature of a house will reduce, and in some cases eliminate, the reliance on artificial heating and cooling systems.

Matthew's display house has a northerly orientation and is designed to optimise the use of the sun as a heating source in winter. The house also features eaves and louvres that combine to provide natural light and ventilation to the living area, while keeping out the summer sun.

He says insulation is another important feature in the design, keeping the house warmer in winter and cooler in summer, and reducing heating and cooling costs.

He has installed CSR's Bradford Gold in the walls and ceilings of the Caringbah house, and Bradford's acoustic insulation, SoundScreen 2.0 (75mm), in the internal walls of wet areas and the main living area to minimise the penetration of noise.

Other smart features include solar access controls (the house is heated by solar radiation), energy-efficient fluorescent lights, sub-floor heating, a solar hot-water system, thickened glass doors and windows (for thermal and acoustic benefits) and an underground water tank that powers the toilets and laundry.

"We're living in an age where there's a strong move towards the design and construction of environmentally sustainable homes. Such houses are not substantially more expensive than conventional houses, have a higher re-sale value and enjoy low running costs.

"What's more, you can't put a real value on how such houses are helping our environment," says Matthew. ■



BUILD

Careful design combined with the right products make for smart, environmentally sustainable homes. This is the timely message builder and designer Matthew Earl is sending out to prospective renovators or buyers in 2007.

An advocate for smart house design, Matthew, of Rossmark, a south Sydney design and construction business, is an accredited GreenSmart professional. He says small changes in the family home can go a long way in saving you money, as well as helping the environment.

Matthew's Caringbah display home exemplifies these principles with a weather-reflective Colorbond roof, Bradford Gold insulation and hardwood flooring on the patio just some of its smart features.

"At Rossmark, we believe the shaping of space is also the shaping of life, and therefore we design and build highly customised solutions that take into account the needs, wants, age, structure, personality of the family, orientation and location," he says.

"We then design and recommend a solution to our clients that suits their lifestyle, is easy to care for, helps the environment by being energy- and water-efficient, while reducing the long-term running costs of these homes."

MORE INFORMATION

■ **CSR Bradford** 1300 850 305

■ **Rossmark** 9525 5588; rossmark.com.au