LOW-ENERGY BUILDING OF THE YEAR
WINNER
THE ZUCKERMAN INSTITUTE
ENTERED BY THE UNIVERSITY OF EAST ANGLIA
SPONSORED BY THE CARBON TRUST

The University of East Anglia’s Zuckerman Institute really impressed our judges as the client set itself the tough target of building the benchmark for natural ventilation – its own award-winning Elizabeth Fry Building. The Zuckerman Institute for comodative environmental research keeps cool by circulating night air through its hollow Temmock floor slabs. It is also better insulated and 40% more airtight than the Elizabeth Fry Building, plus it has a very efficient heat recovery system to recover the heat from expelled air. There is a photovoltaic array and care was taken to minimise the amount of concrete needed for the building’s construction. After a year the building has hit its target for the amount of energy needed for heating and is approaching the targets for other energy use.

RUNNERS UP

THE NATIONAL MARITIME COLLEGE OF IRELAND, ENTERED BY BDP
The client wanted a new education/training facility in Cork and saw just half the energy of a typical building of the same size as BDP’s was architect and engineer. It was easier to adopt the healthier design approach essentials to minimise the use of a building within three distinct areas including high performing computer rooms. The two buildings are naturally ventilated and it except the computer rooms, but these aren’t mechanically cooled.

COLLABORATIVE HEADQUARTERS, ENTERED BY BURO HAPPOLD
The judges were particularly taken by the zero carbon emissions attainment for this project in Newfoundonethrowderry, Ireland. Euro headquarters was responsible for the energy of the second phase of this site. The office complex it houses thermal solar collectors that heat the water in a large buffer vessel – this is topped up by the first large-scale woodpellet-fired boiler in Ireland. This results approximately 150 tonnes of CO2 generation a year.

GILLON STUDIOS, ENTERED BY GIFFORD
McWhirter partners with Gillon to develop the opportunity to develop a “completely green” building when it had to build itself an office at its New Forest headquarters. It has low-energy mechanical ventilation – the fans consume a total of just 150 W – with water combined additional natural ventilation. After just a year in operation Gillon says the building will consume less than half the power needed for a standard air-conditioned office for the same money – clients plenty take note.

GIRD HEADQUARTERS, ENTERED BY HYKRA/ GWW ARCHITECTS
The building in Wembley, South London, had to generate 10% of its energy needs from renewable sources to get planning permission, which is tough for a city office building. The building is minimises solar gain and is very airtight. Thermal solar panels provide 4% of the energy requirement and the building’s enjoyed concrete office’s make use of summer night cooling. All told, the building uses less than half the power consumed by a typical air-conditioned office.

SUSTAINABILITY AWARDS 2005