

DESIGNING for climate is an insignificant extra cost in a new home, with attractive bonuses in energy savings that go on and on.

People ignoring the principles have to spend extra after occupancy, on awnings, blinds and heavy insulation to overcome glaring faults.

They can end up investing the same amount as they would for an efficient passive solar design, but all they have is a hotchpotch, a home that will never really work efficiently.

These people are unaware that they do not have to compromise on individual tastes and styles for an efficient passive solar concept. It can face any direction and be any shape from the simple rectangle to L and H shapes, atrium designs or even in boomerang form to exploit an outlook.

Message

This is the overall message from **Low Energy Buildings in Australia**, a volume prepared by two local architects who have researched the field for years, working in association with a meteorologist. It acknowledges the pioneer work in the field by Drs R. Lawrence and J.E.D. Barker.

The volume splits Australia into 23 regions and it has successful formulae for each. They are not just for homes facing the ideal direction (usually north) but for all points of the compass, to exploit an outlook or meet physical constraints.

"There are guidelines for everyone to achieve the best possible performance year round, for comfortable living with minimum energy costs," explained Mr Gary Baverstock, co-author with fellow architect Sam Paolino.

Stable

"The overall result is a healthier lifestyle in relatively stable indoor temperatures."

At the start of the book the authors pose a broad range of questions, the first being: "Is it worth building a solar house?" They answer them simply and precisely.

The volume has monitored results showing how solar homes are working in the Perth region, though it is a guide for all of Australia.

Mr Baverstock was laudatory of the assistance from the Solar Energy Research Institute of WA in the research and for making a grant that enabled the volume to be published.

He was disappointed that the State Government had terminated funding to the institute which he saw as a viable focal point for the promotion of the development of renewable energy sources in WA. Where this State had

been a national leader in solar energy, there was now the risk of it reverting to the Cinderella State in this field.

While there are many hundreds of solar houses working efficiently throughout the State the volume makes a case history of one, the

Diagrams show prevailing winds and the angles for the rising and setting sun throughout the year. In Perth they vary 56deg from summer to winter.

Sun angles are specified for five specific times each day.

The volume is

Design for Climate award winner in the 1985 Homes of the Year contest and built at Kardinya.

The book looks at the 23 climatic regions, from the Kimberleys to Tasmania. It gives eight orientations for a home in each and tabulates the desir-

able results.

It specifies insulation requirements and gives its performance, the amount of glazing and there is a comprehensive series of sun angles for calculating overhang ... for shade in summer and sun penetration in winter.

aimed at builders and is being marketed through the offices of the Housing Industry Association in all States, also through Eastern States bookshops of the Royal Australian Institute of Architects.

While aimed at the industry it has been

written so that it can be understood by the average person interested in a passive solar design. Its price is \$45.

"We are hoping that people will go to a builder, or architect, and say: 'I want a house meeting these guidelines,'" added Mr Baverstock.