

The building that looks after itself

ACCORDING to a solar architect Garry Baverstock, we can save up to 90 per cent of the energy used in buildings without sacrificing quality of lifestyle.

Mr Baverstock founded the Solar Energy Information Centre in Dyson Street, South Perth, in 1989 to show how it can be done.

He says energy conservation is best achieved with designs, process and techniques that avoid the need to use energy.

Where energy is needed, there are products and processes that reduce consumption by using energy efficiently.

And there are environmentally friendly and sustainable sources such as photovoltaics and windpower which can be used independently or with fossil fuels.

The SEIC uses 79 per cent less energy than most other buildings in Perth, while enjoying a higher level of comfort!

It is the first building in Australia to win the Australian Design Award (1990) and the National Energy Award for Buildings (1993).

The public is beginning to adopt a different approach to building design and is using solar and windpower increasingly, especially in remote areas.

Struggling in competition with low energy prices and a world ambivalent about global pollution, the road for the solar or wind power pioneer has not been easy.

Through the 1970's, the main progress in WA was in solar hot water systems.

The 1980's saw the crystallization of the concept of passive solar or climate sensible homes.

The 1990's will see a comprehensive National House Energy Rating Scheme adopted.

"Up to 20 per cent of the housing market will have solar design features as part of their concept by the end of this century," says Mr Baverstock.

The mounting economic and social costs of environmental damage will present growing opportunities for the business of energy conservation:

- Climate-sensible buildings;
- Air and water pollution control to counter the increasing costs of health problems such as allergies, asthma, respiratory difficulties, skin and eye complaints as well as bacterial build up;
- Conservation and saving of wildlife and nature resources, whose degradation causes losses in tourist dollars.

The cheapest option will be a sustainable ecology to maintain a balanced economy.

The easiest way to influence the market place will be to charge local industry for the real cost of its pollution.

There are massive business opportunities in Asia for energy conserving technologies.

The more our home-grown industry develops, the more successful we will be in competing internationally.

How to become an 'eco office'

YOU might be surprised how easy it is to convert your workplace from a waste manufacturer into an "eco office".

The average Australian creates 776 kilograms of waste a year, most of it unnecessary.

The WA Government Office of Waste Management is a source of good information on how to become an eco office.

It's currently working to develop a kit to help minimise wasteful practices.

In offices all that may be required is changing the production, consumption and disposal practices, the Office says.

The way to begin is to determine what sort of waste is produced and where it is coming from — in other words to undertake an environmental audit to identify the benefits and costs of developing an environmental and energy plan.

As a first step, look at the 3R's: Reduce, Reuse and Recycle.

Reviewing office procedures for ways to reduce or reuse paper is simple and

cheap but it can have an impact on the cost of paper purchases.

Follow this up with paper recycling collections and already significant progress has been made.

There are many more examples of low cost procedural changes which can make a difference, such as double sided photocopied documents or scribble pads from paper discarded at printers or photocopiers.

Finish off by closing the recycling loop.

A viable recycling industry needs markets for recycled material.

Offices can buy many recycled products without the need to sacrifice quality.

A *Recycled Products Buying Guide* was launched in August by the state government and copies can be obtained free from the Office of Waste Management or Department of State Services.

• For information call 222 0422.

Look what the sun has done

THE State Energy Commission has begun construction on Australia's first large scale solar-electric generator.

The plant will generate 20 kilowatts of power, enough to supply ten homes, and is being built at Kalbarri north of Geraldton.

The \$500,000 experimental project is expected to be ready by the end of November.

It will feed power directly into SECWA's South West grid to help stabilise the power level in the town which is at the northern fringe of the grid and subject to fluctuations and loss of power on its way from Geraldton.

The project involves installing 256 photovoltaic modules which will move to keep facing the sun all day like daisies in a paddock.

It will also involve the use of

advanced power inverter technology, which converts the direct current solar-produced electricity to alternating current for distribution in the town.

It was developed by the WA company Advanced Energy Systems as a part of a \$4 million three-year research project involving SECWA, Curtin and Murdoch universities and the Energy Research and Development Corporation.