ENERGY, CONSERVATION AND RECYCLING. POSITION STATEMENTS ON ENERGY POLICIES AND PRACTICE. THE AUSTRALIAN POSITION

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Should we take old designs into the new millennium?

Australian organisations are facing recent developments, which have serious impact on the usage and cost of electric energy. These are a commitment by the government to reduce greenhouse gas emissions in Australia in line with the Kyoto protocol and moves to privatise electric power generation and supply in most Australian States, a development that so far has substantially increased the cost of electric power.

As a result many Australian organisations using controlled environments have now formulated policies which focus on the environmental and economic objectives of reducing energy usage particularly that obtained from fossil-fuelled generation and of making maximum use of energy recycling as a strategy for reducing operating costs. In doing so the scientific function of the controlled environment must of course be preserved.

The SA Research and Development Institute was formed by the SA Government in 1992 to adopt a co-ordinated and holistic approach, incorporating excellence, innovation and cutting edge methodologies, to its research operations. When planning its new $AU 35 million Plant Research Centre in Adelaide, South Australia, the Institute decided to search the tender market for consultants and contractors capable of providing innovative and cutting edge input to the design of its new controlled environments in order to meet these environmental and economic objectives. In conjunction with its controlled environment consultant, Phoenix Research, SARDI succeeded in building units that feature:

Co-generation
Storing and recycling of hot water
Making of ice and recycling ice melt
Capturing and recycling naturally conditioned air
Utilising variable speed fan technology
Using precise computer based control of environmental conditions

So our planning for new or upgraded controlled environments in the new millennium should offer designs which achieve their scientific objectives but which are kind to the environment and energy efficient.