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SOLAR TECHNOLOGY WINS ENVIRONMENTAL AWARD

Solar cell technology developed at the ANU Centre for Sustainable Energy Systems (CSES) has won a Banksia environmental award for environmental leadership in infrastructure and services. CSES and commercial partner Origin Energy were joint winners of the award.

SLIVER solar cells produce electricity from solar radiation and will soon be commercially available from Origin Energy's new manufacturing plant in Adelaide. They offer significant benefits compared with traditional solar cells.

Their effectiveness comes from a novel way of reducing the amount of expensive silicon used in modules made from SLIVER cells, according to the Manager of the Centre for Sustainable Energy Systems, Mr Ray Prowse. "There could be up to a 10 fold saving in the amount of silicon used."

"They are different from conventional mono or poly crystalline solar cells in that the improvement in economic performance is not a result of incremental improvements in efficiency but of research which is 'outside the square'," Mr Prowse said.

"SLIVER technology has the potential to revolutionise the production of electricity from photovoltaics, increasing the competitiveness of environmentally benign solar energy against traditional power sources." SLIVER cells are the brainchild of Professor Andrew Blakers and Dr Klaus Weber who developed the idea while on a train from Scotland to London before a photovoltaic conference in Glasgow in April 2000. One of the aims of research at CSES leading up to that time was to reduce the cost of electricity from solar technologies.

Large cost reductions in photovoltaic systems require a substantial reduction in the amount of silicon per unit area of a solar collector, since the silicon accounts for around half the cost of the finished module. SLIVER cells have delivered on this cost reduction by engineering the silicon in a novel way.

Origin Energy first began investing in solar cell research in 1998. SLIVER cells were an offshoot of the research and R&D funding refocused on the promising new technology. Two years after its invention, in 2002, Origin Energy decided to commercialise the SLIVER cell and has constructed a factory for the production of SLIVER modules in Adelaide.

"There has been much time, energy, research and confidence invested in SLIVER technology by both the Centre for Sustainable Energy Systems and Origin Energy. We are therefore extremely pleased to have received this award for this great product."

The Banksia awards recognise and reward individuals, community groups, businesses and government for environmental excellence and innovation. There are 11 categories of award, including the Prime Minister's Environmentalist of the Year.