



Australians deliver green stuff Stateside

Solar start-ups are heading to the US to find investors, reports Anne Davies.

THREE years ago Danny Kennedy was a campaigner for Greenpeace in Sydney. Now he's one of the founders of a California start-up, Sungevity, putting solar panels on the roofs of houses in northern California.

Co-founded with former BP Solar executive Andrew Birch with "angel funding" from family and friends, including actress Cate Blanchett, the company has devised an innovative online program using satellite images to enable customers to get a quote on a solar system without the need for a site visit.

The online connection, says Kennedy, means a 10 per cent saving on their competitors' costs.

The software was developed by an Australian company based in Sydney, and even though Australia has plenty of sunshine, Kennedy says that California was the logical place to start the business.

And he is not the only Australian entrepreneur to have taken ideas overseas to develop them — raising questions about whether Australia is about to see another brain drain as the US switches on sooner to the idea of a green economy.

On the same flight out of Australia with Kennedy was David Mills, who had until then spent most of his working life at

the University of Sydney developing solar technologies.

Ausra, the US company now developing Dr Mills' large-scale thermal-solar technology, is one of the big hopes of the California clean-tech industry.

His solar-tube technology can create steam from the sun's rays that can be used to drive conventional turbines. Its advantage is that it can generate between 1.3 and three times as much power per acre than any other thermal technology, and this has convinced two of the biggest names in clean-tech venture capital — Kleiner Perkins Caufield & Byer and Vinod Khosla, the man behind Sun Microsystems — to invest.

Also working in California is Saul Griffith, an Australian who did his PhD at Massachusetts Institute of Technology. His company, Makani, has seed funding from Google, and is working on high-altitude wind turbines that use balloons, helicopter-like vehicles or wings to hover at up to 1800 metres where the wind is more consistent, feeding electricity to a grid.

"That type of funding is hard to get in Australia," says Griffith. "While Australia is a nation of gamblers, they don't tend to place bets on new businesses and inventions." As a result, he says, Australian inventors then end up having to sell their ideas at a reduced price.

He also has harsh words for the Australian Government, which he says has devised an eviscerated emissions trading scheme that will work against Australia developing a clean-tech industry.

"Absolutely every natural advantage is ours; we just have to exploit them," he says.

"Nerds don't need much money, they don't care about lifestyle, but they care about seeing their projects through."

Kennedy's reasons for moving across the Pacific were many, he says.

"California, though it sounds like a cliché, is a centre of technology and innovation," he says.

And venture capital is available — Sungevity has just raised \$US6 million (\$A6.5 million) to expand into southern California.

Then there is the cost of electricity from the grid in California, which with peak tariffs is more than 40¢ a kilowatt-hour. That makes solar competitive at about 20¢ a kilowatt-hour, he says.

"Australia has artificially depressed electricity rates because we don't take in the true costs of coal," he says. "Here in California they do."

So far Sungevity has installed 300 systems costing up to \$US24,000 each. But it has big plans. Sungevity sees itself becoming the Netflix, or Amazon of the solar-power industry, using its online interface to keep costs down.

Paul Fox is another Australian working in the venture-capital industry in a clean-tech angel fund, California Clean Energy Fund, or CalCEF.

He says the Aussie brain drain is going to be hard to avoid. "You have to have a big market to sell to attract the sort of risk capital required," he says.



Solar technology scientists are feeding the new brain drain overseas