

Media Release

Solenza develops new approach to solar energy generation

Hamilton, New Zealand - 5 May, 2009 - Solenza has developed a revolutionary new way to harness the power of the sun to generate electricity and heat water by integrating long run roofing iron with a solar energy transfer system. Solenza's patented technology, a shift away from bolt on solar energy panels, uses the surface area of the roof to convert solar energy from the solar cells directly into electricity for commercial, industrial and household use.

Solenza was set up by WaikatoLink, the commercial arm of the University of Waikato, to commercialise the new roofing technology.

WaikatoLink's Chief Executive Mark Stuart says, "We're very excited about the market potential of Solenza's solar roofing technology. Solar energy is receiving a lot of attention as cost cutting, self-sufficiency, and environmental concerns are boosting the uptake of alternative energy solutions globally. Solenza is a great example of how we can leverage world class research from the university to produce products that meet real market needs."

Solenza works in partnership with the Solar Engineering Research Group at the University of Waikato led by Dr Mike Duke. The group developed the process of integrating solar photovoltaic technology into roofing iron to drive down payback time, reduce cost and produce greater efficiencies. The photovoltaic system, which is made of silicon and other materials, responds to light and causes electrons to become excited and move through the silicon. This conversion of radiant energy from the sun into direct current electricity is known as the photovoltaic effect.

Trials have shown Solenza's system to be extremely efficient; up to 70% of the solar energy is converted into useful energy. The built in thermal cooling system ensures more solar energy is harnessed to generate electricity. Water is also heated as part of this process, a significant benefit as heating water accounts for up to 40 per cent of a household's electricity bill. Solenza expects to achieve further efficiency gains and increased energy yield through continued development of the integrated photovoltaic devices.

New Zealand is well positioned to harness solar energy as it has on average about 2000 hours of bright sunshine each year. In energy terms, New Zealand's solar energy resource is about 4 kWh/ m² per day.

Mark Stuart says, "The potential of solar energy is largely untapped. If every New Zealand home had its roof covered in photovoltaic panels, they would collectively generate enough power in a year to satisfy over a quarter of New Zealand's annual electricity needs. Millions of tonnes of CO² emissions would also be saved."

Solenza has already attracted inquiries from companies in the USA and India from parties interested in partnering to take the technology into those countries.

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About Solenza

Solenza was established to commercialise the unique integrated solar energy solution developed by Dr Mike Duke and his team at the University of Waikato. Solenza's patented technology provides a seamless solar energy solution integrated into a buildings' roofing structure, for commercial, industrial and household use. Solenza's solar energy solutions can be retrofitted into existing roofing structures, and provide increased power and water heating efficiencies over traditional solar energy panels.

www.solenza.co.nz

About WaikatoLink

WaikatoLink Limited is a world class technology development and investment company, with a strong track record in translating research outcomes into commercial technologies. As a wholly-owned subsidiary of the University of Waikato, it achieves this by identifying, managing and commercialising the University's intellectual property. WaikatoLink works closely with industry, investors and researchers to identify and develop market opportunities for new technologies, and plays a key role in University knowledge transfer for economic transformation. Since its establishment in 2002, WaikatoLink has completed numerous licensing deals and established more than 12 start-up companies and joint ventures, which have collectively created more than 138 full-time equivalent jobs and achieved market capitalisation nearing NZ\$200 million. Three of its start-ups have already been successfully exited. WaikatoLink's impressive performance is reflected in its top 3% rating when benchmarked against US university technology transfer offices (AUTM survey data).

www.waikatolink.co.nz