

PHP ACHIEVES FIRST PURECYCLE® SALE IN AUSTRALIA

Greenearth Energy Limited (ASX:GER) is pleased to announce that its wholly owned subsidiary, Pacific Heat and Power Pty Ltd (PHP), has successfully sold the first PureCycle® power system in Australia to Gympie Timber Company.

The PureCycle® power system, developed by Pratt & Whitney Power Systems (PWPS), is a 280 kW pre-engineered on-site power generation system that harnesses waste heat in the form of hot water, low pressure steam or thermal oil to generate electricity. Based on a thermodynamic cycle known as the Organic Rankine Cycle (ORC), the PureCycle® power system converts low to moderate temperature resource fluids like water into electricity through vaporising and expanding a working fluid in a closed system. The PureCycle® power system can utilise heat that is available from sawmill residue heat plants, geothermal wells, oil and gas wells, and from industrial facilities. It can also use heat produced when a reciprocating engine or gas turbine is in operation.

This innovative power solution is built with the proven technology and components of commercial centrifugal chillers, which ensures product quality and reliability. It is a low-maintenance, cost-effective option that creates revenue, reduces process cost and supports an intelligent energy strategy.



A single PureCycle® unit

The PureCycle® power system sale to Gympie Timber Company, a renowned Queensland family owned business specialising in the supply of high quality Australian Hardwood Products to the Australian market for over 70 years, is a significant project which will utilise their own resources, in a cost effective manner.

Gympie Timber Company will connect the PureCycle® to an existing thermal oil system used to heat their timber drying kilns. Excess sawmill residue will be used to create the additional heat required for the unit. As a result of the installation, the site will become a net exporter of electricity, and significantly reduce its maximum demand on the electricity network.

Perry Corbet, Managing Director, Gympie Timber Company said: “To be a net exporter of electricity means that our company has found a secondary revenue stream from an otherwise wasted by-product as well as minimising our impact on the environment.

“With a relatively small investment, we have been able to find a productive use for our by-product, reduce our process costs, all without compromising the quality of our products.”



Installation of multiple PureCycle® units

Craig Morgan, CEO of Pacific Heat and Power enthused: “We are extremely pleased to be working with the Gympie Timber Company on the first PureCycle® installation in Australia. The application is an excellent fit, with the packaged nature of the PureCycle® providing a reliable integration into an already automated environment. Thermal oil at the right temperature was already available, as well as excess sawmill residue. Exported power will be contracted to an energy retailer, with a preliminary offer already made for both power and Renewable Energy Certificates.

“This project highlights what we have known for some time now – that there are vast untapped renewable and waste heat resources that can be unlocked through the use of leading technology such as this.”

Mark Miller, Managing Director Greenearth Energy commented: "Vast amounts of useable heat energy are expelled into the atmosphere on a daily basis. We believe that waste heat recovery along with energy efficiency represents a substantial market opportunity for our company.

Our investment in Pacific Heat and Power and Greenearth Energy Efficiency further underpins our strategic objectives by establishing aligned and complementary technologies and project opportunities in the broader renewable and energy efficiency sectors."

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Pacific Heat and Power is also able to offer larger and higher temperature Organic Rankine Cycle turbines from Pratt & Whitney Power Systems and Turboden including a packaged range from 0.6MW_e to 5 MW_e and customised geothermal units with modules up to 12 MW_e.

Pacific Heat and Power	www.pacificheatandpower.com.au
Gympie Timber Company	www.gympietimber.com.au
Pratt and Whitney Power Systems	www.pw.utc.com/Products/Power+Systems/PureCycle



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