Hydro power unit set to hit the market

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Lawyer and Businessman, Paul Kouris has partnered up with engineer Rohan Searle and created a prototype of his hydro power turbine, effectively making it transportable, cost effective and even more environmentally friendly.

The Australian designed and made unit houses Kouris' turbine that harnesses the energy of water flowing through a vortex. Now the unit is compact, made out of plastic and can harness enough energy to power five to 10 houses. Rohan Searle of JB Tooltech has used his sound automotive and engineering expertise to move off from Kouris' troubled infrastructure, and into a cheaper, transportable unit for industry and home use.

He expects the Kouris Centri Turbine Generator (KCT) to give the owner a return on investment in about two to three years, a much cheaper alternative than wind power, which is estimated at a 12-15 year payback time. Currently the unit is being trialled for two uses, 'on grid' and 'off grid'. "One system will be called on grid, which means that the power generated will go straight to the grid.

So whatever you want to use you use, but whatever you don't goes straight back into the grid. Or we'll have off grid, for remote irrigation systems. The off grid system will focus on rural areas," Mr Searle explains. Kouris has plans to bring it to the third world and rural environments. With the flat-pack shipping methods, it is ideal for remote areas. The energy harnessed could provide whole towns with basic – if not all – energy needs. "It goes to a

poor farmer and suddenly he put it in his waterway, hooks it all up, he can irrigate his fields, feed his kids, light his home, cook his food from just the natural flow of water," Mr Kouris told Neos Kosmos.

The potential for the unit has surpassed initial expectations. They have found that the unit actually aerates the water used, making it a much more habitable environment for aquatic life. Uses have even been found with storm water, showing that energy can be harnessed from the turbine used to separate the water from rubbish. Commercialisation rights have been secured in 18 countries and the plan is to use Mr Searle's design. Estimations of the production price of the unit is around $40,000.

The product doesn't require much maintenance, and uses materials that won't rust or get damaged. Stephen Stanley, the general manager of Vortex Earth Energy (the new company created by Searle) knows the potential of harnessing hydro energy. "The big difference between wind, solar and hydro is, with wind, it doesn't blow every time, with sun, it's not always sunny, but with running rivers, they always run," he says. Mr Searle is also the official licensee for the unit in Indonesia, and has high hopes for the unit making progress in some of the remote areas.

Some areas are so remote that diesel airlifted in provides their energy needs. Interest from a Greek engineering firm in the last couple of weeks has the group working hard to strengthen ties and seek viable solutions in the Greek market. Processes are now underway to achieve government funding and set up new test sites for the unit. For more information visit: http://www.kourispower.com/