# Environmentally Friendly Marine Turbine Generator Continues Success in 2012 Australian Engineering Excellence Awards

### Queensland-based R&D Consultancy "e3k" Wins Award

#### Media Release

The SeaUrchin marine power generator is a revolutionary technology designed to economically capture the vast kinetic energy of the world's ocean streams, tidal currents and river flows and convert it into a steady, reliable and therefore base load source of electricity.

This environmentally friendly innovation has added to its success in May this year as the overall winner of the 2012 Engineers Australia (Newcastle Division) Engineering Excellence Awards. At Engineers Australia's National Awards night held at Parliament House in Canberra on 20<sup>th</sup> November 2012, the SeaUrchin Marine Power Generator won a coveted Australian Engineering Excellence Award from the original pool of several hundred entries.

The National Awards were contested by 42 finalists drawn from Divisional winners during 2012 and from a broad cross-section of engineering disciplines, across the nation. Six National Australian Excellence Awards were presented.

The SeaUrchin is the result of a long period of intensive collaboration, with engineers working together on different aspects of the design. Dr Ray Hope, Vice President of Queensland-based Research and Development firm e3k, has been involved in the project from its inception.

"Working on this project has been both a challenge and a pleasure," said Dr Hope of the collaboration headed by Elemental Energy Technologies. "The task of optimising the operation of the turbine has been complex, and has involved the use of specialised software to accurately model the way the turbine interacts with its underwater environment to harness natural kinetic energy. Since the turbine is the SeaUrchin's one and only moving part, it has been essential to make it operate efficiently."

"Receiving such a prestigious award is a magnificent achievement, and provides national recognition of the hard work and dedication of all the engineers involved



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from e3k (a Division of Gilmore Engineers Pty Ltd), ATSA Defence Services Pty Ltd, RPC Technologies Pty Ltd, and Elemental Energy Technologies Ltd," said Dr Hope.

Judges for the awards were quoted as saying "With only one moving part the technology is designed to exploit the underlying principle and raw power of an ocean whirlpool. It harnesses up to four times more power and is up to 70% more efficient than conventional "propeller" driven, marine generators commonly used today."

Dr Duncan Gilmore, President of e3k, said "This prestigious award illustrates how Australian Engineers are at the forefront of building a sustainable world community."

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