

Alternative Energy Systems

Wednesday 17th October 2007

Melbourne Hotel (John De Baun Room), Corner of Hay & Milligan Street, Perth

Bar Opens 5:30pm: Presentations Start at 6:00pm: Drinks and Canapés 7:30pm

Chaired by: **Phil Brown:** JP Kenny Pty Ltd.

J P KENNY

Alternative energy systems are becoming increasingly important as fossil fuels become more difficult and expensive to produce. Extracting energy from the oceans is one form of alternate energy that is attracting increasing interest. Many methods of harnessing the energy of the sea have been proposed, but few are taken through from concept into development. Two elegant, but practical methods of extracting energy from the waves are presented tonight.

New demands for sub-sea mooring systems in the wave energy conversion industry

Tom Engelsman: Oceanlinx



Oceanlinx has developed a patented means to extract commercial energy from the off-shore wave area, and is able to convert the same into power (and fresh water) through a uniquely patented "Oscillating Water Column" system. This floating device, moored in place through a specifically designed system, will be the basis of several large international projects new being developed. This concept will be the first time that wave energy has been able to be commercially "harvested" for main land based power and water grid systems.

CETO, Carbon Free Wave Power Energy Provider of the Future

Dr. Laurence Mann: Carnegie Corporation Ltd.



The CETO project has been formulated from inception to compete with the lowest cost fossil fuel base load systems. CETO relies on energy capture from sustaining seas and swells to provide high capacity factor while also maintaining good reliability of the offshore plant. Wave motion generates pressurized seawater that is piped to shore where it can either be used to run turbines for electricity generation or the high pressure water stream may also be used in part to drive reverse osmosis desalination plant for the creation of potable water. The CETO methodology focuses on using proven low technology components in the critical offshore plant while also moving all of the electricity and water generation components onshore. This presentation will outline the design that has been underpinned by computational fluid dynamical modeling using FLUENT® software and backed up with a comprehensive in-sea device testing program. CETO market development in Australia is proceeding with site identification and detailed discussions with major stakeholders. This is viewed as an important stepping stone to future market entry worldwide and a suitable proving ground for demonstrating workable financing arrangements for commercial-scale marine energy projects.

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To help reduce registration time on the night, SUT would appreciate if you could register and pay for this event in advance. To do this please e-mail Wendy Buchanan on SUT@lmts-eng.com with delegate name, affiliation and credit card details, or if you prefer call 9481 5800 with above details. If unable to pre register, registration and payment will still be accepted on the night.