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WORKSHOP ON OCEAN ENERGY
with a focus on
Wave and Ocean Current Energy

Press Release:

The first South African workshop on *Ocean Energy* with a focus on *Wave and Ocean Current Energy* was held in the Western Cape on **Thursday, 21 February 2008** in the lovely settings of a African boma at the Spier Conference Centre.

The workshop was hosted by the Centre for Renewable and Sustainable Energy Studies on behalf of the South African National Energy Research Institute (SANERI) and Eskom Research and Innovation Department (ERID).

The Department of Minerals and Energy's White Paper on Renewable Energy in 2004 set a national renewable energy target of 10 000 GWh to be supplied by 2013. Various factors drove this target, including the diversification of the generation mix, job creation and other considerations. At that time it was estimated that by 2013 up to 24 MW of wave power could be installed contributing 84 GWh of the overall target.

The consensus of the workshop was that the potential resource of wave power along the SA coast could contribute between 8 000 and 10 000 MW of South Africa's future electricity supply. Most of this will be along the west and south coast of the country. Many studies have been done on wave and ocean capacity along our shores – the verdict is that the latent power that is available is promising. The main challenge is cost and finding the right technology



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Sixty delegates representing academia, the public and the private sector participated in the workshop. Speakers from various interested parties spoke on the topic. The aim of the workshop was to look at ways in which wave and ocean currents can contribute to the renewable energy mix of South Africa. The outcome of the workshop saw the revival of a long dormant area of research and creation of a community of researchers, private sector players and government come alive again.

The workshop was opened with a keynote address by Kevin Nassiep, CEO of SANERI, who outlined the context for renewable energy in South Africa and the place of wave and ocean energy in meeting the renewable energy target.

Prof Deon Retief, a leading expert on ocean and wave energy, informed the meeting of the extensive research completed at Stellenbosch University in the eighties and nineties to evaluate the ocean energy resource and the subsequent work that resulted in the development of the Stellenbosch Wave Energy Converter.

Terence Govender, representing Eskom, pointed to the extensive research that Eskom is already engaged in finding ways to harness wave and ocean energy and the growing interest of Eskom in a range of renewable energy sources.

Presentations were also given of private sector investments in wave and ocean technologies. One of the international companies who are the closest to installing a commercial wave farm, Pelamis Wave Energy Plc, was represented by Vinni Bellini who introduced the Pelamis technology and various projects across the globe. Mark Thomas of Independent Natural Resources Inc. introduced the SEADOG® pump that uses wave action to pump water for desalination or electricity generation through conventional hydro-electric turbines.

The main barriers to harvesting the energy from the ocean were identified as:

- The lack of financial incentives or even clarity of who will purchase the electricity and at what price. The main mechanism to stimulate competition and a free market will be the introduction of a feed in tariff aimed specifically at electricity from ocean energy resources, something Eskom and the Government have talked about but there has been no implementation to date.
- Lack of coordination between the various Government departments that result in either the non-implementation of existing policy or the reversal thereof such as the recent Cabinet decision that only Eskom may purchase the power from all independent power producers.

- The existing complex legislative framework, especially pertaining to ocean energy, where it is not always clear which laws apply or which Government departments are responsible to issue the relevant permits.

In general the participants expressed a concern that South Africa is in general reactive on energy issues and the exploitation of renewable energy seems to be confronted by many obstacles and renewable energy is not given the priority like other energy sources.

The goal of the workshop was to develop a roadmap for the development of an ocean energy industry in South Africa. The participants unanimously agreed on the following short term actions:

- SANERI, through the Centre for Renewable and Sustainable Energy Studies at Stellenbosch University, and Eskom's Department for Research and Innovation will champion the interest of Ocean Energy in South Africa.
- A network of ocean energy stakeholders will be established with ongoing communication through a website and e-mail with regular workshops and conferences to interact.
- Vision and mission statements will be developed for the role of ocean energy in South Africa.
- A base of expertise will be established to advise government (at all levels), developers, Eskom and financial institutions on the various aspects of ocean energy.
- Eskom and SANERI have embarked on a joint collaboration to promote research and demonstration of Ocean energy technologies in SA. This may culminate in the establishment of a Wave Test Centre (a demonstration site in the ocean where developers can test their wave energy converters).
- There are a variety of data sets available in the country at various organisations mapping the ocean energy resource. It was proposed that a common, public repository of all existing ocean energy data for South Africa be established by June 2008.

The workshop ended on a positive note and participants optimistic that the untapped resource along our coastline will contribute significantly in the future to the energy mix of the country.

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