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Recipients of the 2014 SANEA ENERGY AWARDS & the SANEDI/RECORD RENEWABLE ENERGY RESEARCH EXCELLENCE (RERE) AWARDS announced!

The recipients of the **SANEA / SANEDI ENERGY AWARDS 2014** were announced at a prestigious awards ceremony and banquet hosted by Brian A Statham, Chairman of the South African National Energy Association (SANEA). This gala event reflected the significance of the both the awards and the recipients. In his keynote address, Statham paid tribute to the many men and women who are striving on a daily basis to ensure that South Africa enjoys a stable and secure energy future. *"SANEA's Vision of **'Energy People Working Together'** is alive as we come together to congratulate these winners."*

The South African National Energy Development Institute (SANEDI) has again collaborated with SANEA in recognizing South Africans and their achievements, specifically by promoting awards in the research and innovation sectors. The SANEDI/RECORD Renewable Energy Research Excellence (RERE) Awards 2014 were also presented at the event.

"It is important for all of us to stretch the boundaries. If South Africa is to be recognized as a leading nation we have to go beyond the range of normal expectations. Through exceptional performance we can demonstrate what is possible; we can set the standard for a new reality that will deliver the social and economic development necessary for South Africans to enjoy a great future. We have to do this every day; at work and at play. Those who are being recognized tonight have embarked on this journey. They have set the benchmark for a new reality. They are an inspiration to us all. We acknowledge and salute their efforts in the belief that their achievements will inspire others" said Statham.

- The **SANEA ENERGY AWARD 2014** went to **Prof JL (Wikus) van Niekerk of the Stellenbosch University** for his contribution to renewable energy in South Africa (particularly in the field of solar energy).

- Two **SANEA ENERGY PROJECT AWARDS 2014** were awarded, namely to: **Exxaro Resources and Tronox Namakwa Sands** for their Co-generation Project and **Woolworths** for their Good Business Programme that formalises the company's sustainability commitments. The **Hotel Verde** was Highly Commended in this category for their all-encompassing approach to operating a green hotel as well as **Khanyisa Projects** for the Illembe Rural Domestic Biogas Project.

- The **SANEA ENERGY EDUCATION AWARD 2014** was awarded to **Dr Marco Lotz and Prof Alan Brent** for their publication, **Carbon Footprinting Guide.**

- The **SANEDI / RECORD RERE YOUNG RESEARCHER AWARD 2014** was presented to **Karel Malan of the Stellenbosch University**. **Molelekoa James Mosesane of the Tshwane University of Technology** was Highly Commended in this category.

- The **SANEDI / RECORD RERE COMMERCIAL APPLICATION AWARD 2014** went to **Ecovest** for their ECOlite solar home lighting product.

[See additional notes below]

ISSUED ON BEHALF OF: **Brian A Statham**, **Chairman: SANEA**
MORE INFORMATION: **Sarita Cronjé**
083 325 6716
saritac@mweb.co.za

ADDITIONAL NOTES: SANEA ENERGY AWARDS 2014

SANEA ENERGY AWARD 2014

This prestigious award is presented for outstanding sustained individual or corporate contribution to the enhancement of the South African energy environment:

- Leadership
- Innovation
- Initiative
- Role model
- Visionary qualities
- Contribution has had impact in South Africa

AWARD: Prof JL (Wikus) van Niekerk –
For his contribution to renewable energy in South Africa (particularly in the field of solar energy)

Professor van Niekerk has a long history in energy and environmental academics, and now heads the Centre for Renewable and Sustainable Energy Studies (CRSES) at the University of Stellenbosch. The centre was established in collaboration with the government, and boasts sustained income from the Department of Science and Technology, Sasol and Eskom. The overall objective is to develop and enhance national capacity in support of accelerated and shared economic growth within the area of renewable and sustainable energy. This is being achieved by building human resource capacity, creating and disseminating knowledge, and by stimulating innovation and enterprise in this exciting field. The centre has a growing staff of young engineers, scientists and policy researchers and delivers contract research and feasibility studies.

Wikus is well known for his active participation in national energy planning activities. He is a Board Member of the International Solar Energy Society (ISES), the South African Solar Thermal Electricity Association (SASTELA), and created the Southern African Solar Energy Conference (SASEC). He was part of the solar resource spinout success, GeoSun Africa. He is involved in collaborative research across multiple universities, and has coordinated results leading to several Technology Innovation Agency Awards, and multiple patents.

SANEA ENERGY PROJECT AWARD 2014

This award is for a specific project or other defined activity (by an individual or a corporate) that has either made a significant contribution to the South African Energy environment or that has brought international credibility for South Africa:

- Leadership
- Innovation
- Initiative
- Role model
- Visionary qualities
- International recognition
- Contribution has had impact in South Africa

AWARD: Exxaro Resources and Tronox Namakwa Sands –
For their Co-generation Project

Representatives: Louis de Koker (Exxaro) & Peter Haley (Tronox)

In 2007 Exxaro's leadership decided to deal with energy in its broadest context, including shortages, rising costs, climate change, and environmental concerns. One of Exxaro's initiatives has come to fruition in the

commissioning of the Namakwa Sands Co-generation Plant in December 2013. Board approval was obtained in 2011 for the construction of the 13MW co-generation power plant at the Namakwa Sands operation. Construction began in June 2012, while the ownership and operation was handed over to Tronox Limited, in which Exxaro has a 44,4% equity interest, following the broader deal between Exxaro and Tronox. Design capacity is 1.7MW per Jenbacher gas-engine, while up to 2MW per engine is expected. Target output for the plant is 6GWh per month, and 70GWh per annum.

The overall objective of this project is to minimise energy waste, thus increasing energy efficiency. The carbon footprint of electricity from this co-generation source is virtually zero and is one of the first co-generation projects to qualify under the Clean Development Mechanism project under the Kyoto protocol.

AWARD: Woolworths –
For their Good Business Programme that formalises the company's sustainability commitments

Representative: Les Hall

The Woolworths Good Business Journey (GBJ) Programme was launched in April 2007 as a formalisation of Woolworth's sustainability commitments. The Good Business Journey is a comprehensive plan to make a difference in 6 key areas: Energy, Sustainable Farming, Water, Waste, Social Development, and Transformation. From an energy perspective, the commitment is to reduce relative electricity use and carbon footprint by 40% across the business by 2015 (off a 2007 benchmark). Current progress for relative electricity consumption stands at 31% reduction. Other elements of the Good Business Journey include a focus on innovation, transport route optimisation, fridge temperature optimisation, and the incorporation of clean energy production from photo voltaic panels on rooftops.

HIGHLY COMMENDED: Hotel Verde –
For their all-encompassing approach to operating a green hotel

Representative: Samantha Annandale & Calvin Boia

Hotel Verde is Africa's greenest hotel, and has trail-blazed its way to setting a benchmark for sustainable tourism and energy efficient business practice in South Africa. It was the desire of owners Mario and Annemarie Delicio, and their dedicated team, to build a hotel that would lead the way for other new hotels to be built and operated in a far more sustainable and energy efficient manner. Being based at Cape Town International Airport provides the hotel with the ability to showcase South African energy innovation to many international guests. Designed, built, and operated with sustainability and efficiency at its core, Hotel Verde received international exposure at the international trade show, Internorga in Hamburg for "demonstrating with great intuition, innovation, courage and passion how business practices and sustainable management can work together for optimal results", and won the international trendsetter company award.

HIGHLY COMMENDED: Khanyisa Projects –
For the Illembe Rural Domestic Biogas Project

Representative: Nick Alcock

SANEDI is implementing a biogas project in Ndwedwe in the Illembe District Municipality in KwaZulu Natal, and Khanyisa Projects were appointed as the project developer. Twenty six (26) biogas digesters have been rolled out in wards 14 and 18 for the benefit of indigent households. The provision of these 26 biogas digesters begins to meet the needs of the thousands of homesteads in rural KwaZulu Natal that have limited access to safe energy for cooking, lighting, heating water and other household needs. The benefits are a clean, efficient, and convenient fuel which improves quality of life, and provides bio fertilizer for food gardens while reducing deforestation. The project also creates access to safe and hygienic sanitation systems, while reducing the distances walked to collect firewood. Biogas building skills have been initiated within the targeted areas, to enable replication of the project.

SANEA ENERGY EDUCATION AWARD 2014

This award is made for a lecture, presentation, technical paper, article or other educational activity which serves to further the understanding of energy and its role in sustaining human endeavours:

- Objective
- Informative
- Original or a comprehensive review
- Educational
- Topical

AWARD: Carbon Footprinting Guide –
Dr Marco Lotz and Prof Alan Brent for this publication

Representatives: Prof Alan Brent & Justine Bolton (representing Dr Marco Lotz)

Dr Marco Lotz (Nedbank Sustainability Carbon Specialist) and Professor Alan Brent (from The University of Stellenbosch's Sustainability Institute) developed a publication "Carbon Footprinting Guide: A practical footprinting calculation guide focusing on measuring, monitoring, reporting and verification". This guide, published by Nedbank in collaboration with The Sustainability Institute (University of Stellenbosch) in February 2014 and available for free download, is an informative and valuable tool to build an understanding of carbon footprinting and GHG emissions, and assists the reader in reducing their carbon emissions. The Guide is both educational and topical, particularly in light of the proposed carbon tax and a growing demand for sustainability reporting.

ADDITIONAL NOTES: SANEDI / RECORD RENEWABLE ENERGY RESEARCH EXCELLENCE (RERE) AWARDS 2014

RECORD RERE YOUNG RESEARCHER AWARD 2014

This exciting award recognises the contribution of young upcoming researchers to renewable energy research in South Africa:

- Merit
- Innovation
- Novelty
- Applicability

AWARD: Karel Malan
Stellenbosch University

Karel is an electronics engineer with experience traveling and working abroad. Karel's master's project was to develop the control system for a single heliostat, which he then converted to a full research master's dissertation and developed South Africa's first heliostat control system capable of controlling thousands of heliostats. He demonstrated this with an 18 heliostat prototype. This success led to a special grant in 2013 to scale the heliostat system into a full size heliostat facility. The Sasol Helio40 system is now complete and provides part of an impressive facility for CSP research at the university. The TIA Helio100 project commenced in April 2014 and it is funded by the Technology Innovation Agency. Karel is now part of a team of 10 people developing this exciting project which will establish a heliostat field demonstrator capable of driving a 100 kW turbine.

HIGHLY COMMENDED: Molelekoa James Mosesane
Tshwane University of Technology

This work documents the product Fuel Performance Catalyst (FPC) as a homogeneous catalyst in diesel engines. It also builds a business case for a specific company in South Africa and if implemented will reduce running costs through a proven reduction in fuel consumption. Experimental data was collected where diesel consumption was interpreted as fuel consumed in litres per 100km travelled. While the trucks had no designated drivers and the payload and routes varied daily, the test conditions were not as controlled as in a laboratory environment. Inferential statistics, linear and power trend equations were employed for the analysis of the data. The paper has been accepted at the International Conference on Advanced Technology and Sciences to be held in Antalya, Turkey and will be presented later this year for it to be published in the journal Intelligent Systems and Applications in Engineering (IJISAE).

RECORD RERE COMMERCIAL APPLICATION AWARD 2014

This exciting award recognises the contribution of novel commercially viable renewable energy research in South Africa:

- Merit
- Innovation
- Novelty
- Applicability

AWARD: Ecovest –
For their ECOlite solar home lighting product

Representative: Christiaan Taljaard

The modular ECOlite is a unique solar home lighting system that aims to replace the current use of paraffin, kerosene and candle lighting in low income areas of developing countries. The locally produced product is both rugged and cost effective, and comprises a solar PV panel, controller with battery, and lamp. The modular design allows the consumer to buy only the lamp; the battery/controller portion of the system is then charged from a different location (micro energy vendor) as an alternative to an inclusive solar panel. The technology seeks to become the preferred lighting solution for 120 million off-grid homes with 600 million users across Africa, and thus avoiding the dangerous use of open flame lighting solutions. Other products in the Ecovest range include ECOstove, a biomass and biofuel cooking solution, as well as various lifestyle products in household services and entertainment.