

Press release:

'Green and clean' – RTS offers a hydrogen battery robust enough for the toughest African conditions

-An energy-efficient and cost-effective alternative to conventional power sources

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With rising costs in electricity generation, increased demand and frequent 'black outs' compounded by cable theft, the search for renewable energy power sources is becoming increasingly urgent.

Rand Technical Services (RTS), based in Tshwane, has added an exciting new product to its portfolio: a hydrogen battery robust enough for the harshest African conditions. The hydrogen electrolyser, created and manufactured by Italian 'clean technology' company ACTA, presents a viable alternative to conventional power sources, particularly in areas where electricity supply is unreliable.

"The product, ACTA Power, was developed to act as a stand-by power supply in cases where there is erratic power supply. The technology is a back-up power system in battery form, using a renewable natural resource – hydrogen - which is stored at pressure," explains RTS's Chairman Ian Fraser. "This is relatively new technology, and we are very excited to introduce it to this country where we believe it has significant potential."

The battery uses technology similar to that of fuel cells, but in reverse, according to Fraser. While fuel cells convert oxygen and hydrogen into water, producing electricity in the process, the hydrogen battery technology creates an automatic power source through separating oxygen from hydrogen and the subsequent chemical reaction.

RTS, the African agent for ACTA, specialises in offering innovative technologies and solutions to industrial challenges - ensuring that products, which are frequently imported, are suitable for frequently demanding pan-African conditions.

"The ACTA Power hydrogen battery is a robust, stand-alone unit which is suitable for the African climate and environment. It has a wide application, but would be particularly suited to smaller installations. For example, a telecommunications installation in a remote location, where renewable energy resources are used, such as solar and wind," says Fraser.

"As a replacement of normal stand-by power supply, it is extremely economical, particularly in comparison to a diesel electricity-generation system. ACTA hydrogen batteries are also

cost-effective because of their durability. These units operate for 5 to 10 years and more, without needing replacing, and run completely on renewable resources. Additionally, being virtually 'theft-proof', the hydrogen battery is advantageous in areas where theft, especially of generators and batteries, can be a real problem. This adds to its cost benefits."

The hydrogen power summit - H2 SA 2014 - held in February, brought RTS in contact with ACTA and its cutting-edge electrolyser technology. The summit highlighted the potential of hydrogen as a potentially emissions-free alternative fuel source, and showcased current and new hydrogen production technologies.

"At RTS, we are very excited about ACTA's new hydrogen battery technology. As an effective and economical alternative to fuel-based back-up power sources, we believe it has a strong future in this country and beyond our borders," Fraser concludes.

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(475 words)

Note to Editors

Rand Technical Services, or RTS, is a specialised, Tshwane-based company offering innovative technologies and solutions to industrial challenges.

Run by Chairman Ian Fraser since its inception in the early 1990's, the company offers globally-sourced, quality products such as spin filters, laser-based gas detection devices for hot or corrosive areas, and electrolyzers for hydrogen production.

Product delivery and technical consultation by highly-trained staff is offered throughout Southern Africa to a range of clients in industry sectors such as mining, glass, steel and energy.

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