

Circuit that defies basic laws of physics

Own Correspondent

An electrical circuit that produces 17 times more power than it takes in?

It defies the most basic laws of physics but it's intrigued the MTN ScienCentre at Canal Walk in Cape Town sufficiently to put it on display.

And respected electronics journal *Quantum* has published details of the circuit, devised by Rosemary Ainslie of Marina da Gama, after conducting its own tests.

"It works," said editor Pierre van Rhyn. "But I cannot yet say why or how."

Even Sasol, the synthetic fuels giant, has offered a bursary to any academic institution wishing to take the "discovery" forward and develop applications for it.

"We are willing to offer a bursary to a post-graduate student who would want to take up this technology and develop it," said John Marriott, general manager of Sasol Limited.

In the meantime though, Ainslie says "Stellenbosch University has refused to even allow a demonstration of the device".

"This technology needs academic evaluation of the magnetic field model which suggests that all forces are underpinned by a magnetic force," she said. "But it is a non-classical theory and, under-

standably, represents a big stumbling block for them."

Ainslie (54) believes her "discovery" - made after five years of work - could all but eliminate electricity bills.

If the technology to use the device existed, it would take from the national grid just enough electricity to power itself then use that power to create more energy, from sources which are not yet fully understood, to boil a kettle or heat a geyser.

The former secretary and property agent claims to have based her "solid state switching circuit" on the back of a theoretical model of magnetic fields she developed after reading numerous scientific publications.

Her prototype device was developed with the help of a group of engineers. Electronics technician Brian Buckley assembled the apparatus.

Using two 12-volt batteries as its power source, the circuit is made up of what appears to be a fairly simple solid state switch with a load resistor.

In the *Quantum* article, Ainslie and Buckley explain the relatively simple circuit design and invite readers to develop or study it.

"Basically, what this equipment shows is that energy efficiency can be increased through circuit design," Ainslie said. "I am not trying to make this a secretive thing. I of-

fer the design of the circuit in the magazine to anybody to build and test independently.

"To use this technology for household applications in normal high voltage power grids one would have to produce very strong transistors. It would, however, be relatively simple, within the constraints of existing technology, to apply this device to alternative energy supply sources."

The experiment has been demonstrated to representatives of BP, Sasol, ABB Electric Systems Technology Institute in the US, Spescom and Fluke Instruments. Fluke provided sophisticated testing equipment and certified the results.

ABB Electric Systems Technology Institute in North Carolina, a National Aeronautics and Space Administration (Nasa) supplier, conducted independent tests. Cape Hope Metrology Laboratory certified the experimental data on components that had been calibrated at Telumat's metrology laboratory.

Said Ainslie: "The fact that the academics refuse to evaluate the apparatus is understandable. Science does not allow for these results. They are trained in classical thinking and this states that these results are impossible.

"But the fact is that science is only advanced on experimental evidence. In effect, it is

bad science to deny the experimental results or to assume errors of measurement without first doing the experiment or evaluating the measurements protocol."

Van Rhyn, an engineer involved in electronics and applied science, said: "The scientific community had the same qualms about microwaves. I published the article because I want my readers to discuss it and replicate it."

The concept is now also being taken seriously by Professor Mike Bruton of the MTN ScienCentre.

"Physics is not my field of expertise, but I believe there is enough evidence here to make a case for serious debate.

"We investigated the equipment and have brought it to the centre for display. Mrs Ainslie couldn't give us the oscilloscope with which to display the wave patterns and the computer on which she displays the models, and we hope we can find some support to get our own."

Ainslie said: "The technology needs to be developed on two fronts. We need an academic institution to evaluate the implications of the magnetic field model and design this for publication. Parallel to this, we need industry to come forward to build prototype applications, otherwise the income and job-creation benefit of my work could be lost to South Africa."

How the amazing invention works

So, why is it supposed to work?

Rosemary Ainslie explains that the circuit comprises a solid state switching device with inductance added to the windings of the load resistor.

This is then run at an oscillating frequency, which results in a "startling" over unity efficiency by a factor of 17. "These results were required in terms

of a magnetic field model that has been developed".

In terms of this model, electric current is determined to comprise the transfer of discrete and discontinuous magnetic particles that can only move to or from that supply source.

"It proposes that energy that is dissipated actually emanates

from magnetic fields within the structure of the load resistor itself.

"These fields were trapped inside the cooling structure of the load resistor in the process of formation and are responsible for binding the atoms into atomic abodes. Under certain extreme conditions these fields can 'peel off' as photons.

"This results in the fatigue or degradation of the structure, as can be seen over time.

"In effect, the experiment was designed to prove that classical concepts of energy transfer err, as they assume a depletion of energy from the supply source as energy is transferred." - **Own Correspondent**