

ED'S  
NOTE

BY SAMANTHA MORGAN



## Dear Reader

This is now the third issue of the year of Environmental Management. That means that we will be halfway through the year by the time you receive this.

*We have a key feature on renewable energy in this issue – perhaps a good thing to remind ourselves, as winter starts setting in, that there are other sources of energy that we can rely on, not just to light up our world but to keep us warm.*

*Did you ever think you would hear ‘so long lithium, hello bacteria batteries’?*

*Solar, wind and other renewable energy sources are gaining ground as nations work to lower greenhouse gas emissions and reliance on petroleum. But sunlight and wind are not constant, so consumers can't count on them 24/7. Storing energy can make renewables more reliable, but current technologies such as lithium-ion batteries are limited by safety issues, high costs and other factors.*

*Sam D. Molenaar and his colleagues from Wageningen University and Wetsus (The Netherlands) wanted to come up with a less expensive, sustainable solution.*

*The researchers combined, for the first time, two separate microbial energy systems: one that uses bacteria to form acetate from electricity and one to convert the produced acetate back into electricity. The researchers successfully charged the battery over a 16-hour period and discharged it over the next eight hours, mimicking the day-night pattern typical for solar energy production. They repeated this cycle 15 times in as many days. With further optimisation, they say the energy density of the microbial battery could be competitive with conventional*

*technologies. Someday it could help us store energy from local renewable sources safely and at a lower cost than current options. (Source: ACS' journal Environmental Science & Technology Letters)*

*Enjoy the read.*

**Sami**



► *We apologise for an incorrect caption in the March issue alongside the article 'SRK story finally gets told.'*

*The caption should read: SRK Consulting SA board members Vassie Maharaj and William Joughin with chairman of SRK Consulting SA, Graham Howell.*