

Africa's 'Greenest' hotel from top to bottom

[Hotel Verde](#), situated just a mere 400m from Cape Town International Airport, has been labelled as Africa's greenest hotel - showcasing some of the world's most advanced, environmentally conscious technological installations, construction methods, procurement and operational initiatives - making it a prime example of what responsible tourism is.

Partners, Mario and Annemarie Delicio of Dematech, are the proud owners behind the making of Hotel Verde. The duo, who are 100% dedicated and passionate about sustainability, transformed what was initially just a business proposition into a showcase of environmentally conscious technological installations as well as construction and operation practices in the world.

"We have a responsibility as a company, as an employer and as a visitor on this planet to live as sustainably as possible. This is the only way we can survive long-term and hand over to our children in a responsible manner." says Mario Delicio.

Hotel Verde, a subsidiary of BON Hotels Group, opened its doors to the public in August 2013, just outside Cape Town International Airport. The team behind Hotel Verde spent three years researching, conceptualising and building the hotel.



The entrance to Hotel Verde at night

Outside the recycable box

"If you look at what can be done from a green angle, you look at energy, water and waste reduction," Delicio explains. "You then take each of these areas and work out how to implement alternatives, for example generating your own electricity. Then you need to explore the extent to which you can go."

The team at Hotel Verde have really uprooted their efforts and is yet to be seen anywhere else on the continent. The majority of its resources have been sourced from local suppliers, within driving distances, while sustainable practices in

and around the site has opened up many alternatives in which staff and guests can generate their own electricity and reduce waste to almost zero.

"We have an advantage because we are starting from scratch. We could go from choosing recycled bricks and insulation, to installing a geothermal field, coupled to ground-source heat pumps. When you build new you can plan much more than if you retrofit an existing building."

The value of everyday resources

Andre Harms, Sustainability Manager of Hotel Verde and founder of Ecolution Consulting, is a trained mechanical engineer and the expertise behind some of the more technical aspects of the building. Harms spent 15 months at the South African Research Centre in Antarctica, and knows what it is to value everyday resources and is applying this dedication to each facet of the hotel. "We have the opportunity to change the status quo here," he says. "We have looked at different ways of doing everything, right from the word go."

This includes the photovoltaic (solar) panels, positioned to provide shade as well as power. "They are mounted on the north façade of the building so as to not only generate electricity but create shading for the windows that get the most sun."

Another is to dramatically reduce the amount of concrete required by utilising Cobiax void formers - recycled plastic balls-placed within the concrete slabs that are required for the various floors. These "plastic balls" displace the concrete, saving approximately 535m³ or 1284 tons of cement, while maintaining the structural integrity.

Their own water recycling plant

Hotel Verde is home to a grey water recycling plant that contributes towards a 37% reduction of potable water use.

"We have laid a network of pipes through the building in order to reticulate the grey water, collecting it and supply it to flush the toilets," Harms explains. Hotel Verde will also be utilising a rainwater filtering and capture system to provide water for the car wash and irrigation. The elevators will run on a regenerative drive, which will allow for about 30% of the input energy to be recaptured and fed back into the building, and double-glazed windows with spectrally selective glass will filter out hot rays, so less heat enters the building, reducing the need for air-conditioning.

In order to bypass the need for standard air-conditioning systems, traditionally one of the biggest energy consumers, Hotel Verde will utilise ground source heat pumps made by 100 holes drilled about 76 metres into the ground, where the temperature is a consistent 19 degrees centigrade. German supplier, AGO Energy will install a complex network of piping and equipment specifically designed for Hotel Verde, that uses the earth as a heat source in winter and "heat sink" in summer, boosting efficiency and dramatically reducing operational costs.

"There is no other hotel in Africa that has gone to the extent that we are hoping to achieve," Delicio says. "But going green is not just about the building, it's about every aspect of the operation; zero waste to landfill for example. We might never reach that, but with the ideas we have in mind we will come pretty close."



Hotel Verde's Eco Pool

Rewarding their guests

The hotel rewards guests with coins, called Verdinos, to customers who get and take part in the whole green thinking philosophy.

Despite the fact that this is the first of its kind, the Hotel Verde team doesn't want it to be a secret; they want to share their convictions with anyone who'll listen. "We might have the slogan 'Africa's Greenest Hotel' right now, but we hope it won't be for long," says Harms. "We want to show the continent what can be done. We want to challenge the industry as a whole."

Hotel Verde is situated at 15 Michigan Street, Airport Industria, Cape Town. For more, go to www.hotelverde.co.za or watch the [video](#) to find out more about its green practices.

For more, visit: <https://www.bizcommunity.com>