



Life off the grid

Repurposed shipping containers form the basis for a home-grown eco mobile living unit concept.

One man's affordable housing is another man's dream home – it all depends on income. That's where Cape Town entrepreneur John Venter has stepped in: he believes his eco mobile home concept will satisfy affordability and at the same time be desirable enough that people will want to live in it. A bonus is that the homes are designed from the outset to be suited to off-grid living.

Venter's ambitious idea is based on "upcycling" 12-metre shipping containers and turning them into 30 m² homes costing R359 000. When we spoke in July, Venter said his company, Umnyama Ikhaya, had already started production at a facility in the Boland town of Paarl.

Each pod home is based on a 12,19 metre x 2,9 metre x 2,5 metre container. "We integrate gas, wind and solar to provide a completely off-the-grid solution," says the publicity material. "A backup inverter can be plugged into a generator or the Eskom grid in emergencies." Each unit comes fully kitted, finished and fitted with all appliances.

How does it do the off-grid thing? Electricity is provided by solar or wind generators and cooking and heating are by gas. The toilet system is a self-composting solar Afrisan system and the roof design incorporates rainwater harvesting with a storage tank. Materials used include recycled flooring and bamboo for vanity and kitchen tops.

"These pods can be delivered via air, water or road anywhere in the world," he says. Delivery is quoted as four to eight weeks.

Although much of the focus in providing housing has focused on lower-income units, the Umnyama Ikhaya solution would address the dire shortage of opportunities for the middle-class, says Venter. In-house finance options initially were limited to an unsecured loan with a 99-month term, provided by partners Greenfin, but a 20-year mortgage deal was expected to be in place by January 2017. "We will (then) be selling these pod homes land inclusive. This will make this accessible to individuals being able to purchase these homes on a R13 000 combined

income," the company's material states.

An eco-village development using the pods on a green wine farm in Klapmuts, near Paarl, is in the planning stages. Plot sizes from 100 to 350 square metres.

The company is also offering exclusive sales agency licences. "The interest nationally has been amazing with government, private sector and banks," says Venter. I was invited by the NHBRC as exhibitor and speaker to the World Green Building Convention was held last year November at the Cape Town convention centre. It was so well received by all walks of society, government and private sector."

In development and due to be launched towards the end of the year are a 15-square-metre automated garage pod running off solar and a similar-size storage pod powered by a wind turbine. "It will have the same look and feel of the main house," Venter says.

Initial production capacity is about 10 a month. "The demand we are experiencing far outweighs the current supply. And we expect demand to ramp up once we launch the show pod, which I am going to live in."

The beauty of his design is that you don't need to install conventional infrastructure because it's self-contained, he says. "And it's a modular build, it's a perfect stackable solution, it's space-saving, it's structurally much stronger than brick and mortar. The load-bearing points are the corners. You can cut quite a bit out of the sidewall structure because that's not load-bearing. You can fit 40 tons in one of these containers, so you can imagine the strength."

He admits that there are hurdles to overcome. "For instance, government doesn't make money out of off-grid housing. But the timing is perfect for this solution."

As to styling and finishes, he says, "I can make it look like a brick building or a wooden building if you want, but we are happy with the finish we have chosen."

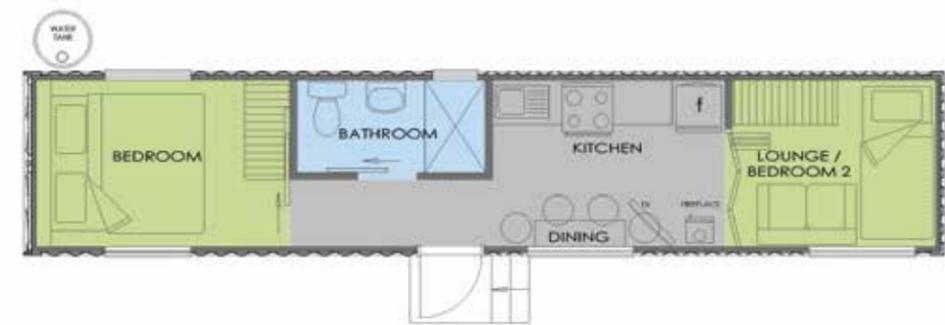
Construction of the pods is much less labour-intensive than conventional building and is quicker. "I won't say it's always cheaper, but it does offer greater convenience."

The housing unit is designed to sit 50 cm above ground on a foundation entailing six reinforced concrete piers, each with a metal plate seated in the top and 50 centimetre ground clearance. "You seat the container and weld it on to the base."

The forty-something Venter, from



TYPICAL 1 BEDROOM UNIT



TYPICAL 2 BEDROOM UNIT



Compact but functional, the Umnyama Ikhaya eco pod home is designed to be used entirely off-grid. Environment-friendly or recycled materials are used for interior finishes and trim.

Pretoria via the Eastern Cape and the Free State, says he chucked up a promising career in property because he found he lacked motivation. "I needed something I could be really passionate about."

Venter's vision stretches to entire eco estates including housing, shops, schools, doctors' rooms and apartment blocks completely off the grid. "Our product is the answer to so many challenges faced by our country, continent and the world. It is a structurally stronger form of housing, poses no fire hazard and is watertight, wind-proof and eco-friendly."

To find out more, visit umnyamaikhaya.co.za

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