

## **“Solar energy lighting the way for small businesses”**

Large shopping centres in urban hubs have been early adopters of the solar farming trend. With ample roof space and large daily energy usage, they are a perfect case study for the cost-saving benefits of solar power. However, the economic spinoffs of renewable energy are truly palpable in rural areas where malls are few and far between.

Formalised retail centres in rural settings require 500 KVA or more to operate and are registering substantial cost-savings through the use of solar power, while also contributing to creating jobs and economic activity in small towns such as Vredendal, Bela-Bela and most recently, Clanwilliam.

This is according to Dominic Wills, CEO of [SOLA Future Energy](#), who says that businesses with varying energy needs are experiencing the benefits of investing in solar panels and even lithium-ion batteries, which assist in providing retail centres with reduced reliance on the national grid.

The load shedding of 2008 had an enormous effect on the current state of the economy and came at a huge cost. In fact, the National Energy Regulator of SA (Nersa) in 2008 published a report saying it had cost the economy an estimated R50 billion.

Despite this, mall development in South Africa is on the rise, according to the South African Council of Shopping Centres (SACSC) [\[1\]](#). As formalised trading spaces, Malls in rural settings provide job creation and economic sustainability for small businesses.

Wills, who has been involved in implementing solar PV projects for retail centres of varying sizes for 6 years, explains that the initial capital outlay is offset by the rand value of energy savings year-on-year, encouraging many malls to make the switch to solar.

His company installed a 1 MWp photovoltaic system on the roof of the Bela-Bela Mall in Mpumalanga earlier this year, comprising of 3240 poly-crystalline modules, which will provide over 1.6 MWh of clean energy per year.

By reducing its reliance on the national grid, the centre is expected to save nearly R1.8 million in just the first year.

“The project will pay for itself in less than five years, and amounts to a carbon footprint reduction of 1490 Tons of carbon dioxide each year for the duration of the system’s lifespan,” he points out.

“For most shopping centres, a payback period between 3 - 4 years is becoming normal.”

Similarly, the installation of 1620 polycrystalline modules at the Maskam Mall in Vredendal in the Western Cape is expected to produce 877 660 kWh of energy each year for at least the next two decades.

This adds up to energy savings of nearly R800 000 and a carbon dioxide reduction of 778 Tons each year.

“These examples point to the efficacy of solar PV not only in urban, but also in rural settings,” Wills added. “The beauty of such a flexible and deployable technology is that it is perfect for small towns in South Africa - and Africa more broadly”.

## **Financing solar energy projects**

Although the initial capital investment might be a barrier for entrepreneurs, financial institutions are increasingly viewing renewable energy projects as “bankable,” which is a sign of trust and confidence in the strength of the technology and the sector.

“In the absence of a bank throwing its weight behind a project, other financial tools are available such as a solar Power Purchase Agreement (PPA), which allows a business to pay off and maintain their own solar energy system at no upfront cost, while enjoying immediate cost savings,” Wills explains.

He says that businesses also have the option to take ownership of the system at the end of the financed period.

As the South African government moves to firm up its efforts to reduce greenhouse gas emissions as part of the proposed National Climate Change Bill, the above-mentioned businesses are already doing their part for the environment.

“Although we tend to calculate the cost savings for businesses based on electricity consumption figures, the actual benefit should include the monetary value of a reduced carbon footprint on the environment,” Wills concludes.