

Fuel stations save costs through solar photovoltaic power

Solar photovoltaic (PV) installations are achieving significant electricity cost savings for fuel service stations across Namibia and South Africa, also helping those businesses to reduce their carbon footprints, according to Tim Frankish, Managing Director of SolarSaver, a solar energy group backed by Stimulus Investments and the Pembani-Remgro Infrastructure Fund.

“Service stations are ideal candidates for solar PV solutions as they generally have canopy space that sits in full sun. They also consume a lot of electricity, especially as many sites now include 24-hour retail stores as part of their service offerings,” says Frankish. “We have completed numerous solar installations for service stations and have found that we can considerably cut their monthly electricity costs.”

With electricity costs up by 350% over the last decade and the regional grid under enormous pressure due to generation issues at Eskom, leading fuel retailers are grabbing the opportunity to adopt solar solutions – both to save costs and in an effort to go green. For example, the system at Puma Energy’s Bach Street Service Station in Windhoek has generated 207,273 kWh since its commissioning in October 2016. The solar output has to date covered 25% - 30% of the site’s total monthly electricity consumption, resulting in material electricity cost savings and a significantly reduced carbon footprint.

SolarSaver has so far completed eight solar installations for service stations in Namibia. That list includes Engen sites in Windhoek, Outapi and Oshikuku, two Puma Energy sites in Windhoek, a Shell station in Rehoboth and a Total station in Otavi. Numerous other installations are planned across the country in the coming months. SolarSaver has also started installations at fuel stations in South Africa as the business expands.

Frankish sees great potential for solar adoption across the fuel retail sector, as all of the major fuel retail groups are actively encouraging their franchisees to adopt solar solutions. And it’s not a hard sell - SolarSaver offers customized solar solutions on a rent-to-own basis. That means franchisees can benefit from the systems without the need for any upfront capital investment. Instead, SolarSaver installs the systems free-of-charge against a variable monthly rental charge.

“The effective cost of rented solar power is significantly cheaper than the equivalent cost of grid power, so our clients get to start saving on their electricity bills from day one,” says Frankish. “Our solar rental charges then only increase in line with CPI inflation, so clients’ savings grow each year as grid electricity costs increase significantly beyond that.” SolarSaver also remains responsible for all ongoing monitoring, maintenance and insurance. “We like to think of our offering as a ‘capex-free, hassle-free’ way to take advantage of solar power,” he adds.

The concept has proven extremely popular and SolarSaver now manages the largest fleet of self-financed rooftop installations in Southern Africa. “We believe our competitive advantage in the fuel retail space lies in our ability to build smaller systems economically and to manage and maintain those even across widespread geographic locations,” Frankish notes.

While initial solutions focus on daytime power generation through grid-tied solar, SolarSaver is already starting to update existing systems to include batteries as that technology becomes more cost-effective. Solar technology is rapidly evolving and decreasing in cost. Solar panel prices have decreased by 80% since 2008 and the lithium-ion batteries used in solar applications have already halved in cost over the last two years. “Our long-term goal is to provide our clients with 24-hour power solutions through fully-financed, customised solar-battery systems,” says Frankish. “In the meantime, our clients get to benefit from cheaper daytime electricity, without the expense or hassle of purchasing and managing the systems themselves.”