

A New Dawn For Solar Power

The extended energy crisis is set to remain integral to life in SA and likely to deteriorate further in the coming years, causing considerable economic losses. Eskom issues aside, sustainable and affordable energy production has become a global trend with improved, cheaper technology and electricity prices on the rise.

KJION Energy SA, a subsidiary of ICT Group Holdings, entered the South African market in 2012 to exploit the abundant sunlight and provide sustainable energy to residential, commercial and industrial sites. "South Africa's perfectly suited to solar power" says Paul Fried, CEO of KJION Energy SA. "Load shedding is only one reason to go solar. We have all this sunlight — we should be taking more advantage of our renewable, reliable energy source."

Specialising in solar photovoltaic (PV) systems, combined with electrical storage technologies, KJION's range of products is applicable to small home installations as well as large commercial and industrial sites, with the benefit of offsite monitoring. These customised solutions suit completely self-sustainable, off-the-grid requirements, as well as backup, on-grid PV needs, and a solar trailer for mobile demands.

On-grid or grid-tied PV system

With solar roof panels, connected to an inverter, the sun's power is fed directly into the home, office or factory. Here, power is consumed immediately by appliances and in the case of a power outage, the PV system also shuts down. "This is an affordable way to install solar and ideal to cut costs, but is not suitable for power outages" says Fried.

Grid-connected backup system

"Your power source is on your roof" says Fried. Solar energy is transmitted through the panels and stored in a battery pack, well-suited to power outages or load shedding, saving on electricity bills and acting as a backup. "An advantage of this is that you can use the battery to increase your PV-power self-consumption rate up to

100% - you're making optimum use of your photovoltaic investment" says Fried. Other power sources such as generator backups can be combined with this system.

Island PV system

This is a self-sufficient, off-the-grid system which, although it requires careful planning prior to installation, has obvious benefits.

Solar trailer

"Our mobile solution" says Johann Wassermann, Sales Manager, "is an entire solar plant on wheels. We developed it originally for use by mobile medical units in rural areas, but it works really well on building sites, or even guesthouses in the deep bush. Its 3kW (single phase) to 3*10kW (3 phase) in different configurations, but could also be built individually to customer needs." The advantages of this solar arrangement is that it's quiet, fume-free and provides clean, constant power, it's low maintenance and cheap to run.

Solar energy, although a seemingly simple choice in SA, has the reputation of being expensive. While this was the case in the early days, it has become affordable as technology improved and the market became more receptive. With the price increases in grid-electricity showing no sign of abating, the initial outlay for solar has become feasible. Banks and financial institutions are offering financing options and the return on investment periods are shrinking. "For a fully self-sufficient system, the ROI is between four and ten years" says Wassermann. "For backup solutions, you're looking at between six and 10 years, while grid-tied installations are paid back in three to seven years. And these figures don't include Sars' tax incentives on solar installations and the possibility to write-off systems in one year" he adds.

KJION monitors its installations remotely, to ensure proactive response. "We're also able to monitor electricity consumption and potentially assist in querying overbilling by the utility provider" says Wasserman. "It is possible to install solar in office parks and sell power to other tenants: we will be able to see each user's consumption."

Together with KJION Technology GmbH in Austria, KJION Energy SA's sister company and shareholder, the company has over 20 years of experience in the field of solar technology and custom-designed solar energy solutions. "We follow EU standards" says Wassermann. "Our hardware is of high quality, but we're also conscious of keeping costs down."

"Solar energy is undeniably the way forward" says Fried. "In a country that features in the sunniest places in the world and yet is fraught with power issues, it makes sense to connect with the sun – feel the power — our company slogan."

Further information is available from: KJION Energy SA, Johann Wassermann, Tel: 012 880 0088 (ext. 401) Cell: 081 025 3153 email: johann.wassermann@kjon.co.za