

Master Power saves R9 000 per month with solar energy installation

Master Power Technologies (MPT) has taken its first step into the world of sustainable energy production with a R475,000 solar panel installation at its head office in Randburg.

Known for its energy-efficient solutions providing customers with reliable independent power systems, MPT has been researching the efficacy of solar power for some time. *“Having done our homework, we decided that implementing a solar solution at our own office would be the best way to demonstrate to clients that we were capable of recommending and installing solar solutions for them,”* says Master Power CEO, Menno Parsons.

The goal of the solar project was to design and install a renewable energy system to supplement MPT’s power usage and reduce the company’s electrical costs, while investigating solar power generation as an efficient means of renewable energy.

“With growing electricity costs and an increasing number of power outages, research into practical and efficient solar installations that provide decreased long-term electricity costs and offer a sustainable energy source was critical to Master Power,” adds Parsons *“In addition, an efficient system would decrease MPT’s demand on*

the South African electricity grid while supplementing our backup power solutions in the event of a power outage.”

The solution Master Power designed was installed on top of the car ports in the parking lot. Each of the two parking bays has 80 x 250 watt PV panels coupled to a 20kW inverter, totalling 40kW potential power in ideal solar conditions. The solar panels occupy a total area of 600m² and are perfectly suited for a rooftop installation.

The total cost of the system including all the necessary cabling and mounting equipment was R475,000. Therefore, producing an average of 150KWh per day, the system has an expected pay back period of 4 years and 4 months in terms of savings from reduced electricity costs. Clarifying the savings MPT will achieve, Parsons says that an average of 150KWh per day translates into an average saving of R9000 per month with current electricity tariffs.

However, he notes that with Eskom asking for another 25% increase in its fees, the payback period will actually be far less. *“In addition, we haven’t even included the cost benefits of having our own green power supply that does not depend on diesel or*



petrol and allows employees to remain productive during periods of load shedding.”

The solar PV system is a once-off cost with a maintenance life of 25 years, which in the long run will provide significant savings. Not only is it economically beneficial, but it is an environmentally friendly means of obtaining an alternative energy source.

The solar project took approximately 2 months to install. As this was a first for the MPT team, depending on the site, future installations should be conducted in a shorter period.

Master Powers customers can also benefit from similar solutions which will help them achieve improved environmental status through green energy solutions, limit the demand on the South African grid and save not only electricity charges from Eskom, but also on current costs of running backup solutions during power outages.