



31 Totius street Ivy park
Polokwane
0700

Tel: + 27 (0) 81 725 7692
Cell: 076 411 2388 / 083 293 8799
Fax: 0865386778
Email: APCGroup@workmail.co.za

PO Box 2292
Polokwane
0700

PhotoVolataics

Photovoltaic (PV) systems use solar panels to convert sunlight into electricity. A system is made up of one or more PV panels, a DC/AC power converter (also known as an inverter), a racking system that holds the solar panels, electrical interconnections, and mounting for other components. Optionally it may include a maximum power point tracker (MPPT), battery system and charger, solar tracker, energy management software, solar concentrators or other equipment.

A small PV system may provide energy to a single consumer, or to an isolated device like a lamp or a weather instrument. Large grid-connected PV systems can provide the energy needed by many customers.

The electricity generated can be either stored, used directly (island/standalone plant), or fed into a large electricity grid powered by central generation plants (grid-connected/grid-tied plant), or combined with one or many domestic electricity generators to feed into a small grid (hybrid plant).



A division of

APC Technology Group (Pty) Ltd

"Engineered to satisfy"

	DC	Grid Tie	Multi Hybrid	Island
Typical Use				
Camping	✓			
Small Holiday Home	✓			✓
Staff quarters	✓			✓
Residential	✓	✓		✓
Commercial		✓	✓	
Lodges				✓
Industrial		✓		
Reduction of electricity cost		✓	✓	
Reduction of diesel cost		✓	✓	✓
Back-up power needed			✓	✓
Continuous power needed			✓	✓
Remote locations (farms, parks)	✓			✓
Grid independent				✓
No grid power available				✓
System Specifications				
PV panels	✓	✓	✓	✓
Inverter		✓	✓	✓
Charge Controller	✓			✓
Battery	✓		✓	✓
12V	✓			
220V		✓	✓	✓
Advantages				
Cost effective (short payback)		✓	✓	
Very low maintenance		✓	✓	
Staged, modular expansion	✓	✓	✓	✓
Complete grid independence	✓			✓
Reduced carbon footprint	✓	✓	✓	✓
Batteries sized only for essential power users			✓	
Batteries only used during grid power failure			✓	
No power storage losses		✓	✓	
Option of external power source (grid, generator, wind)			✓	✓
More reliable power supply than grid			✓	✓
No need for lifestyle adaptation		✓	✓	
Remote monitoring possibilities		✓	✓	✓

A division of
APC Technology Group (Pty) Ltd
 "Engineered to satisfy"