

Photovoltaic (PV) technology has more than 50 years of history. Photovoltaic cells, originally developed in late 50's, were firstly utilized to provide electrical power for earth-orbiting satellites throughout the 60's. Since then, with continuous improvements taking place in manufacturing process, performance, quality, cost and standardization, photovoltaics became one of the most popular means of producing alternative and renewable energy power.

Today, photovoltaic technology is used in many applications, including solar park power stations, consumer electronics apparatus, street and park lighting, farms, hotels, houses, rural village electrification, water pumping, sea water desalination, lighthouses, illuminating advertising bill boards, mobile phone base stations, radio stations, security and surveillance systems, satellite and other telecommunication applications, telemetry systems, camping electricity, boat and yacht electricity and many more.

Photovoltaic (or solar) cells are semiconductor devices that convert sunlight into direct current (DC) electricity. Groups of PV cells are electrically configured and encapsulated between sheets of ethylene vinyl acetate (EVA), highly transparent, antishock, tempered glass to form a module. Modules are externally wired to form arrays (strings) of any power.



With the appropriate power conversion equipment PV systems can produce alternating current (AC) power, compatible with any appliance and of equal or better quality to any national utility grid. They,also can operate as stand-alone, or as grid connected systems.